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**Reading for the Students of Biology
and Ecology
Part I**

Учебно-методическое пособие

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В учебно-методическом пособии представлены оригинальные тексты по направлениям подготовки 022000.62 «Экология и природопользование», 021000.62 «География», 020400.62 «Биология» для изучающего и ознакомительного чтения.

Тексты подобраны по тематическому признаку, упражнения обеспечивают эффективную повторяемость лексических единиц в пределах тематического комплекса.

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Введение

Настоящее учебно-методическое пособие предназначено для студентов первого курса, обучающихся в вузах по направлениям подготовки: 022000.62 «Экология и природопользование», 021000.62 «География», 020400.62 «Биология».

Целью пособия является оказание помощи студентам в овладении навыками чтения, перевода и понимания специальной литературы и формирования навыков устной речи.

Пособие может быть использовано не только как книга для чтения и перевода, но и для различных видов работы в аудитории: пересказа и обсуждения. Оно также может служить материалом для самостоятельной работы.

Пособие состоит из текстов, которые сопровождаются разнообразными заданиями, направленными на расширение словарного запаса, на развитие всех видов речевой деятельности и языкового мышления.

Упражнения имеют практические, образовательные и развивающие задачи. Практические задачи заключаются в формировании умения находить в тексте информацию, а также необходимую лексику для использования в диалогической и монологической речи.

Образовательные задачи направлены на расширение кругозора студентов, приобретение языковых средств для выражения своих мыслей на иностранном языке.

Развивающие задачи заключаются в развитии языкового мышления и тренировке памяти.

Пособие включает в себя словарь специальных терминов, которые способствуют формированию навыков профессионального общения на английском языке.

Can we live longer?

I. Read and translate the text.

Scientists say that in the future people will live longer. With healthier lifestyles and better medical care the average person will live to 90 or 100 instead of 70 and 75 like today. When the human genome is decoded, we'll probably live up to 150. Incurable diseases will be cured and "bad" genes replaced.

But that's tomorrow. And today, we continue to stuff ourselves with fast food – chips and pizzas, hamburgers and hot dogs. We are always in a hurry. We have no time to enjoy a home-cooked dinner with family and friends. We want to eat now and we want to eat fast.

What is tasty is not always healthy. Doctors say that chips and pizzas are fattening, cola spoils our teeth and coffee shortens our lives.

If we eat too much, we'll become obese, and obesity leads to heart disease, diabetes and other serious illnesses. But the world today is getting fatter and fatter. America is the world's leader in obesity, but Europe is quickly catching up.

Lack of exercise is another serious problem. We spend hours in front of our computers and TV-sets. Few of us do morning exercises. We walk less, because we prefer to use cars or public transport.

Research shows, however, that young people who don't take enough exercise often suffer from heart attacks.

It's common knowledge that smoking and drinking can shorten our lives dramatically. Cigarette-smoking, for example, kills about 3 million people every year. Many of them die from lung cancer. Some aren't even smokers. They are people who live or work with heavy smokers.

Yet many young people smoke and drink. Why? One answer is that tobacco and drinks companies invest enormous sums of money in advertising their products. For them cigarettes and alcoholic drinks mean money. For us they mean disease and even death.

We all know that the healthier we are, the better we feel. The better we feel, the longer we live. So why not take care of ourselves?

<http://www.englishlanguage.ru/index.php>

II. Study the vocabulary:

lifestyle – образ жизни

medical care – медицинское обслуживание

average – средний
human – человек, человеческий
genome – генетический код, геном
to decode – расшифровывать, декодировать
incurably – неизлечимый
disease – болезнь
to cure – лечить, излечивать
gene – ген
to replace – заменять
to stuff – набивать желудки
research – исследование
to suffer – страдать
heart attack – сердечный приступ
it's common knowledge – общеизвестно
dramatically – резко
lung cancer – рак легких
heavy smoker – заядлый курильщик
tobacco – табак, табачный
pizza – пицца
hamburger – гамбургер
fattening – способствующий
ожирению, жирный
to spoil – портить
cola – кола
obese – тучный
diabetes – диабет
to catch up – догонять
lack – нехватка
to prefer – предпочитать
to invest – инвестировать
enormous – огромный
to advertise – рекламировать
product – продукт, товар
alcoholic – алкогольный

III. Answer the questions:

1. Do you think people will live longer in the future?
2. Do you believe that one day genetic engineers will be able to correct “gene” mistakes?

3. Do you like fast food? Is it tasty?
4. Why is fast food bad for us?
5. What illnesses does obesity lead to?
6. Are Europeans getting fatter?
7. The USA is the world's leader in obesity, isn't it?
8. Do you take regular exercise?
9. How often do you go for a walk?
10. Do you spend much time in front of your TV-set?
11. Why is smoking dangerous?
12. In some countries tobacco and alcohol advertising has been banned. Do you think it's a good idea?
13. Is passive smoking dangerous?
14. Would you like to live a long life?

IV. Give the English equivalents:

сокращать жизнь, исследование, заменять, геном, способствующий ожирению, лечить, рекламировать, продукт, сердечный приступ, тучный, рак легких, заботиться, убивать, здоровый образ жизни, медицинская помощь, ген человека, неизлечимые болезни, объедаться гамбургерами, кола портит зубы, кофе сокращает жизнь, лишний вес – мировая проблема, мы мало ходим пешком, употребление спиртных напитков.

V. Give the Russian equivalents:

human, genome, incurable diseases, replace, to stuff, to enjoy a home-cooked dinner, to spoil out teeth, obese, heart disease, diabetes, research shows, heart attacks, lung cancer, advertising, healthier lifestyles, medical care, average, genome is decoded, disease will be cured, fast food, illness, smoking, drinking, tobacco, invest enormous sums of money.

VI. Complete the following sentences, using the essential vocabulary:

1. What is tasty is not always
2. Chips and pizzas are
3. If we eat too much, we'll become
4. Who don't take enough exercises often suffer from
5. Cigarettes and alcoholic drinks mean ... and even ...
6. ... diseases will be cured.

VII. Speak on the problems:

1. Can we live longer?
2. What do we stuff ourselves with?
3. How much do we eat?
4. Do we take enough exercises?
5. Do the young people smoke and drink? Why?

THE WORLD OF ANIMALS

I. Read and translate the text.

Our country is very rich. Its vast territories lie in different climatic zones from the North Pole to subtropics in the South.

Our country's fauna is extremely rich, numbering great amounts of various mammal species, species of birds and fishes. Northern areas are rich in the polar bear, polar fox, seal, walrus, whale, sable, wolf, silver fox, brown bear, reindeer, marten, lynx and many others. Most of them are valued for their fur. Various species of birds and fishes are numerous. The southern area of our country is the habitat of such representatives of fauna as the lion, leopard, desert lynx, hyena, fox, gazelle, wild goat, red deer, and mouflon. Blue Antelope Gnu, bison, various kinds of snakes, birds and fishes.

Many species of animals live free of danger from man in national parks.

The first national park was set up in the USA. It is more than one hundred years old. There are 7 such parks in our country.

In 1948, 230 countries organized "The International Union for Conservation of Nature and Natural Resources" (IUCN). A lot of State Reservations have been founded since that time.

Under their protection some rare animals have multiplied to an extent making hunting possible, so that we can now obtain from them valuable fur, medical raw material and other products.

Exercises

II. Find the English words and expressions in the text for the following.

Виды млекопитающих, некоторые редкие животные, не опасаясь, размножились, организовать заповедники, морж, песец,

олень, рысь, ценный мех, сырье, представители фауны, под защитой, быть богатым чем-либо.

III. Give the Russian equivalents:

vast territories, subtropics, fauna, mammal species, polar bear, polar fox, seal, walrus, whale, sable, wolf, silver fox, brown bear, rein deer, marten, lynx, lion, leopard, desert, hyena, gazelle, wild goat, red deer, mouflon, bison, rare, animals.

IV. Answer the questions.

1. What climatic zones do our country's territories lie?
2. What is the fauna in the Northern areas of our country?
3. What is the fauna in the Southern area?
4. Where do animals live free of danger from man?
5. Where was the first national park set up?
6. What does IUCN mean? When was it organized?

V. Make up a short summary of the text using the plan below:

1. The title of the text.
2. Our country's fauna.
3. State Reservation and protection the rare animals.

YELLOWSTONE, THE FIRST NATIONAL PARK

I. Read and translate the text.

Yellowstone is the United States' first and most famous national park. This large wilderness area is very high in the Rocky Mountains of the north-western US. It includes large areas of Montana, Wyoming and Idaho.

Yellowstone became the world's first national park in 1872. Although millions of people visit the park, the land is still unchanged – still a wilderness. The valley of the Yellowstone River has beautifully colored rocks and three large waterfalls. In the valley you can come across moose, large deer-like animals, or buffalo eating grass along the shores of Lake Yellowstone. The high mountains around Yellowstone are covered with evergreen forests. Great grizzly bears live there.

Yellowstone Park has many areas with not springs and geysers or hot

water fountains. They are caused by heat from hot center of the Earth.

In winter Yellowstone Park is covered with heavy snow. With clouds of steam above them and snow all around, Yellowstone's hot springs look even more spectacular.

Exercises

II. Find the English expressions for the following.

Включая территории, первый национальный парк мира, горячие источники и гейзеры, вечнозеленые леса, медведь-гризли, быть вызванным, водопад, дикие места.

III. Give the Russian equivalents:

famous, wildness, area, valley, colored, rocks, waterfalls, come across, moose, buffalo, along the shore, grizzly bear springs, geysers, fountain, heat, spectacular.

IV. Answer the questions.

1. How old is the Yellowstone national park?
2. What areas does it include?
3. Did the territory of the park change because of many visitors?
4. What animals live there?
5. Are there any other attractions in the park?
6. What national parks in your country do you know?

V. Read the text again and memorize it.

VI. Retell the text close to the original.

VII. Study your active vocabulary:

valley – долина

rock – скала

waterfall – водопад

come across – встречать

moose – большой олень

grizzly bear – медведь-гризли

hot springs – горячие источники

wilderness area – дикие места

geyser – гейзер

OUR ENVIRONMENT

A

I. Read and translate the text.

Forests cover 30 % of the Earth's land surface.

The tropical rain forests in Amazonia, Southern Asia and West and Central Africa are being destroyed at an alarming rate of 42 million acres per year. This destruction is caused by slash-and-burn agriculture, cattle ranching, building of dams and highways, and mining.

The tropical rain forest is natural recycle, provider and protector for our planet, it supports the ecosystem in the world. Deforestation is endangering this ecosystem in the world.

Deforestation is endangering this ecosystem, and could cause at least one-fourth of all species on Earth to vanish in the next 25 years. Burning these forests releases carbon and decreases oxygen in the atmosphere, causing the global warming.

Protecting all forests is the key to our survival on this planet.

Exercises

II. Find the situations where the following words and expressions occur:

- 1) rain forests, to be destroyed, an alarming rate;
- 2) slash – and – burn agriculture, natural recycle, to support;
- 3) to endanger, to release, survival.

III. Find the translation of the following expressions.

Cattle ranching, natural recycle, provider and protector, building of dams, global warming, release carbon and decrease oxygen, deforestation, to vanish in the next 25 years, to cause destruction.

IV. Answer the questions.

1. What is the rate of forest destruction in the world?
2. What is the destruction of forests caused by?
3. What is the speed of the forest destruction?
4. What is the usefulness of the rain forests?

5. Where are the main rain forests situated?
6. What is the danger of deforestation?
7. Do you think the forest protection is a real key to our survival?

V. Speak about our environment using the words from ex: A.

B

I. Read and translate the text.

Air pollution is the result of man's use of chemicals, and is a common hazard in both industrial and developing countries. One form of air pollution is acid rains.

Acid rain results from the release into the atmosphere of sulfur oxide and nitrogen oxide. Electrical plants, industrial boilers and automobiles are among chief sources of these emissions. The gases react with water droplets, forming a mixture of sulfuric acid and nitric acid, this mixture returns to earth in the form of acid rain, mist or snow.

Acid rain is killing vast stretches of forests in Canada, the United States, and central and northern Europe. Acid rain has acidified lakes and streams making them unable to support fish, wildlife, plants or insects.

Exercises

II. Answer the questions.

1. What are the main sources of acid rains?
2. What is the common hazard in the developing and industrial countries?
3. Why are acid rains so dangerous?

III. Find in the text sentences with the following words and expressions, translate them into Russian.

Sulfuric acid, nitric acid, chief source, droplet, acidify lakes, support life, industrial boilers, man's use, the source of emission, vast stretches of forests.

IV. Speak about air pollution (acid rains) using the words from ex: B.

C

I. Read and translate the text.

Oceans cover more than 70 % of the Earth's surface. Despite the vastness of this area we know little about it.

Life began in the ocean more than 3,5 billion years ago. Today the ocean supports a wealth of simple and complex sea life from phytoplankton to marine mammals. But human beings ignore and misunderstand the importance of oceans.

There is widespread pollution and disruption of our coastal waters, whales and dolphins are hunted to near extinction, and many fishing areas are being depleted.

The oceans do not belong to a single nation, but are free, open territory to be enjoyed and shared. However, too often nations are very aggressive in taking the resources the ocean have to offer. A tragic result has been the systematic hunting of whales for whalebone, blubber, and oil.

Also, the tuna-industry has put the dolphin population at risk and onto the endangered species list. In the past 30 years the tuna-fishing industry has killed more than 6 million dolphins.

Exercises

II. Write out the underlined words and expressions and give the translation.

III. Make up questions to the text to cover the contents.

IV. Give the summary of the text using the words and expressions.

D

I. Read and translate the text.

High above the Earth's atmosphere there is a thin veil called the ozone layer, which protects the Earth from the sun's destructive ultraviolet (UV) rays.

This protective layer is being damaged by chemicals, which are released into the atmosphere by the daily use of industrial and household products as refrigerators, air conditioners, cleaning chemicals, food packings, etc. The chlorine attacks the ozone molecules, thinning or even making a 'hole' in the ozone layer. This 'hole' allows more UV rays to penetrate to the Earth.

Overexposure to UV rays can increase the risk of skin cancer, weaken the immune system, and damage the retina.

Not only are humans at risk, so are animals, plants, and the environment in general.

<http://www.help.su/press/news3915.htm>

Exercises

II. Answer the questions.

1. What is the ozone layer?
2. How is it being damaged?
3. What harm does the damage do to the Earth?

III. Find the words in the text.

Озоновый слой, ежедневное использование, рак кожи, ослаблять иммунную систему, защитный слой, разрушать ультрафиолетовые лучи, озоновая дыра, проникать, разрушительный.

IV. Speak about the ozone layer and its destruction using the words from ex: D.

ENVIRONMENTAL POLLUTION

I. Read and translate the text.

Environmental pollution is a term that refers to all the ways that human activity harms the natural environment. Most people have witnessed environmental pollution in the form of an open garbage dump of a factory pouring out black smoke. Some kinds of pollution do not actually dirty the land, air, or water, but they reduce the quality of life for people and other living things. For example, noise from traffic and machinery can be considered forms of pollution.

Environmental pollution is one of the most serious problems facing humanity and other life forms today. Some air pollutants have reduced the capacity of the atmosphere to filter out the sun's harmful ultraviolet radiation. Many scientists believe that these and other air pollutants have begun to change climates around the world. Water and soil pollution threaten the ability of farmers to grow enough food. Ocean pollution endangers many marine organisms.

Many people think of air, water, and soil pollution as distinct forms of pollution. However, each of the parts of an environment – air, water and soil – depends upon the others and upon the plants and animals living within the environment. The relationships among all the living and nonliving things in an environment make up an ecological system, called an ecosystem. Thus, pollution that seems to affect only one part of the environment may also affect other parts. For example, sooty smoke from a power plant might appear to harm only the atmosphere. But rain can wash some harmful chemicals in the smoke out of the sky and onto land or into waterways.

Some pollution comes from one specific point or location, such as a sewage pipe spilling dirty water into a river. Such pollution is called point source pollution. Water can run off farmland and carry pesticides and fertilizers into rivers. Rain water can wash gasoline, oil, and salt from highways and parking lots into the wells that supply drinking water. Pollution that comes from such large areas is called nonpoint source pollution.

Unfortunately, most of the pollution that now threatens the health of our planet comes from products that many people want and need. For example, automobiles provide the convenience of personal transportation, but they create a large percentage of the world's air pollution. Factories make products that people use and enjoy, but industrial processes can also pollute. Pesticides and fertilizers aid in growing large quantities of food.

To end or greatly decrease pollution, people would have to reduce use of cars and other modern conveniences, and some factories would have to close or change production methods. Because most people's jobs are dependent on industries that contribute to environmental pollution, shutting down these industries would increase unemployment.

Over time, however, pollution can be reduced in many ways without seriously disrupting people's lives. For example, govern-

ments can pass laws that encourage businesses to adopt less polluting methods of operation. Scientists and engineers can develop products and processes that are cleaner and safer for the environment. And individuals around the world can find their own ways to reduce environmental pollution.

From Bobileva S.V. English for Ecology.

II. Study the vocabulary:

natural – природный

garbage dump – мусорная свалка

pour out – выбрасывать

noise – шум

reduce – сокращать

harmful ultraviolet radiation – вредные ультрафиолетовые лучи

threaten – угрожать

marine – морской

relationships – взаимоотношения

point source pollution – точечные источники загрязнения

nonpoint source pollution – неточечные источники загрязнения

provide – обеспечивать

create – создавать

III. Answer the questions:

1. What forms of environmental pollution can people see?
2. What forms of environmental pollution reduce the quality of life?
3. Why do climates around the world change?
4. What makes up ecological system?
5. How does one of the parts of an environment depend on the others?
6. What pollutions are called point and nonpoint source pollution?

IV. Give the Russian equivalents:

environmental pollution, a garbage dump, pour out, reduce, quality of life, traffic, machinery, atmosphere, harmful ultraviolet radiation, threaten, ecological system, sewage pipe, conveniences.

V. Give the English equivalents:

загрязнение окружающей среды, мусорная свалка, угрожать, со-

кращать, качество жизни, шум, атмосфера, вредные ультрафиолетовые лучи, экологическая система, точечные и неточечные источники загрязнения.

VI. Make up a short summary of the text using the plan below:

1. The title of the text and its meaning.
2. Some kinds of pollution and their influence on the environment.
3. Ecological system is the relationships among all the living and nonliving things.
4. Pollution that comes from specific points and from all kinds of products.
5. Environmental pollution can be reduced in many ways.
6. The message of the text.

VII. The following things cause damage to the environment: automobiles, factories, litter, harmful emissions, cutting down trees etc. Talk to each other about which of these things cause the most damage and decide how you would change the law in relation to one of these things.

WHY MUST TECHNOLOGY BRING APOLOGY TO ECOLOGY?

I. Read and translate the text.

To answer this question we must first of all learn the meaning of the word “ecology”. Ecology is a science which studies the relationship between all forms of life on our planet with its environment. This word came from the Greek “oikos” which means “home”. This idea of “home” includes the whole planet of ours, it’s population, the Nature, animals, birds, fish, insects, all other living beings and even the atmosphere around our planet. Do all of them live a happy and healthy life in our Home nowadays? Unfortunately, it is not so. Indeed, many territories, water basins, lakes, rivers, seas, oceans – and the atmosphere are polluted with all kinds of technological, agricultural, chemical, nuclear other wastes. The intensive development of sciences, industry and chemistry in the 20th century has made

the pollution of our environment a global problem which should be solved by all means.

Besides, rapid growth of our population (there are about 6 billion people living on our planet now) needs more and more land, food, goods and modern conveniences for newly-born people. The production of them in large amounts will greatly increase the pollution of the environment. And what to say about the awful harm caused to our Home by nuclear tests, atom bombs and accidents at our atomic power stations? Isn't it high time to start solving this global problem and to make our life in our Home happy and healthy?

Now you know the answer to the question of why technology must bring apology to ecology. You are right. Because it has polluted and is badly polluting our environment.

And in conclusion all of us should always remember the wise advice of a great English writer John Galsworthy who said: "If you don't think about the future you will not have it".

<http://www.englishlanguage.ru/index.php>

II. Study the vocabulary:

technology – технология

apology – вред

ecology – экология

relationship – отношения

environment – окружающая среда

include – включать

pollute – загрязнять

waste – отходы

development – развитие

science – наука

production – производить

atomic power station – атомная электростанция

nuclear – ядерный

increase – возрастать

III. Answer the questions:

1. What does the word "ecology" mean?
2. What pollutes water basins, lakes, rivers, seas, oceans and many land territories and the atmosphere?

3. What must we do to make our life happy, healthy and beneficial?
4. What advice of John Galsworthy must we remember?

IV. Group the word into 4 categories (noun, verb, adjective, adverb):

science, to include, unfortunately, development, industry, century, pollution, accident, advice, agricultural, harm, healthy, to increase.

V. Complete the text:

1. We must learn the meaning of the word
2. Ecology is a science which studies ... between all forms of life on our planet with its environment.
3. The intensive development of industry has made ... of our environment.
4. What to say about the awful ... caused to our Home by nuclear tests.

VI. Retell the text using the following plan:

1. The article tells us about
2. What a science of ecology studies.
3. The situation around our planet.
4. The message of the text.

INTRODUCTION TO THE SAKHALIN REGION

The Sakhalin and Kuril Islands are situated in the Russian Far East, north of Hokkaido, Japan, and surrounded by the Sea of Okhotsk and Sea of Japan. Sakhalin is the largest island in the region and by far is the most developed. The length of Sakhalin from north to south is 948 km; with the greatest width being 160 km and the smallest width at 26 km. The total area of the island is 76,400 sq. km. Approximately 2/3 of the territory is covered by mountains, the highest mountain being Lopatin Mountain – 1609 m. high. The climate differs very much from north to south because of the significant length of the island. In the central and northern parts of the island, the winter is severe (average temperature in January is -12F0; record low is -65F0). In the south, the winter is milder, average for Janu-

ary is-21F0, but with a lot of snow and snowstorms. Forests occupy 87 % of the region's territory, with the approximate amount of timber available at 650 million cubic meters. The oblast is not only rich in wood products, but also fur animals. The sea around the island is rich in fish, sea animals and other natural resources. The Sakhalin economy is based on fish, fish-processing, forest and oil and gas industries. The island is the third-largest producer of fish products in the Russian Far East. Seafood and timber are exported mostly to Japan as well as to other Asia-Pacific countries. According to 1999 data of the Shelf Department and Committee for Natural Resources of the Administration of the Sakhalin Region, proven reserves of hydrocarbons in four offshore projects total 1400 mmt oil and 2.3 bcm gas, with another 2.6 billion barrels oil equivalent estimated in areas yet to be leased. Discovered onshore reserves are 60–70 % depleted, though opportunities abound for secondary/tertiary recovery and workover. Small onshore deposits are still being discovered. The city of Yuzhno-Sakhalinsk, called “Yuafaeio” is Trig Tiapitat of the Sakhalin Region, with about 180,000 inhabitants, almost 1/3 of the regional population. The other two strategic cities of the region, ports of Korsakov and Kholmsk, are located 35 and 100 kilometers from Yuzhno-Sakhalinsk. The majority of the population has a very low income. According to recent data from the Sakhalin Regional Administration for Labor the average necessary minimum monthly income was calculated to be about US\$ 55 (the national average subsistence income for Russia during January September 1999 was approximately \$ 34). One out of three inhabitants of Sakhalin and the Kurils lives on less than that amount (roughly the same as the Russia-wide figure). Ten per cent of the local population have incomes that exceed the calculated minimum by ten times or more, but the number of such people has not grown recently because of 1998 economic crisis and resulting inflation.

BRIEF OVERVIEW OF MAIN INDUSTRIES

The Sakhalin economy is based on fishing, fish-processing and forestry industries; the local food-processing industry is also increasing its output. The food-processing sector includes fishing, meat and dairy, flour milling, baking, confectionery, liquor production and the

brewing industries as well as enterprises producing non-alcoholic beverages and local mineral water. The local timber industry is stocking up for export, with the major foreign customer being neighboring Japan. Coal production, stagnant for a time, is shifting from shaft-mines to opencast mines, lowering costs and improving export competitiveness. Once transport problems are solved, there could be an improved outlook for medium-quality brown coal exports.

<http://www.englishlanguage.ru/texts/index>

I. Give the Russian equivalents:

the greatest width, total area, significant length, severe, average temperature, mild, occupy, amount of timber available, resource, proven reserves, hydrocarbons, deplete, recovery, work over, deposit, discover, majority, low income.

II. Give the English equivalents:

длина, общая площадь, приблизительно, суровый, средняя температура, лесные массивы, природные ресурсы, реальный запас, оффшорный проект, исчерпывать, месторождение, разработка, низкий доход.

III. Study the following essential vocabulary:

total area – общая площадь

significant – значительный

wood product – производство леса

natural resources – природные ресурсы

timber – лес

proven reserves – реальный запас

offshore project – оффшорный проект

deplete – исчерпывать

recovery – переработка

work over – разработка

majority – большинство

low income – низкий доход

subsistence – средства к существованию

exceed – превышать

inflation – инфляция

IV. Complete the following sentences, using the essential vocabulary:

1. The Sakhalin and Kuril Islands are ... in the Russian Far East.
2. ... of Sakhalin from north to south is 948 km.
3. ... of Sakhalin is 76400 sq. km..
4. The sea around the island is rich in fish, sea animals and other ...
5. ... are exported mostly to Japan.
6. Discovered onshore reserves are 60–70 % ...
7. The majority of the population has a very ...

V. Make up sentences using the Passive Voice:

be situated, be surrounded, be developed, be covered, be based, be exported, be discovered, be calculated.

ENVIRONMENTAL PROBLEMS

I. Read and translate the text.

European citizens are **concerned** about the state of the environment. They want their children and grandchildren to have the same right as we have to clean air, clear water and green forests. The European Union **shares** these concerns and has accepted the principle of **sustainable** development. Since 1992, the focus of EU environmental policy has been to match production and **consumption patterns** to what our environment can sustain in the long term. Climate change and the **depletion** of the ozone layer are two instances where the limits of sustainability may have been exceeded. Pre-1992, EU environmental policy concentrated on **corrective** action. This was not always successful, partly because there was no integrated approach between environmental protection and economic activities in other sectors which went on harming the environment. Now the EU **promotes** partnership and shared **responsibility** to **prevent** and, where possible, **reverse** environmental degradation. It **seeks** from a **coalition** of government, industry and **consumers** a **commitment** to conserve resources, to re-use and recycle old products, to **dispose of** waste safely and develop environment-friendly energy sources. As pollution knows no **frontiers**, the EU sees its policy as part of a global strategy to save the environment for future generations.

We are **engaged** in a race against time. The need for a pro-active

policy to protect the environment is universally recognized in Europe and elsewhere. Social progress and economic **prosperity** have depended on activities which **depleted** the earth's resources and cause pollution. The products we need and the vital services we use – from transportation to health-care systems – use these resources and create waste and pollution as **by-products**.

Historically our planet's remarkable regenerative capacity was able to cope with the environmental impact of human activity. But this capacity is now stretched beyond its limit. The two need to be brought back into balance as quickly as possible.

Our environment is threatened in many, often **interrelated** ways.

What are the main threats? Global warming and the ensuing climate changes that could transform temperate zones of the earth into arid deserts and flood low-lying regions as ice caps melt is one prospect of environmental degradation that faces mankind. It is caused by the **release** into the atmosphere of greenhouse gases, principally carbon dioxide from the burning of **fossil** fuels. Another **consequence** may be a sharp rise in skin **cancers** as the protective ozone layer in the upper atmosphere is depleted by man-made chemicals.

The environment is **further** threatened by acid rain, the destruction of tropical forests and the **extinction** of many **species** of animal and plant life. The quality of water, both for drinking and bathing, is another growing problem. More needs to be done to control agricultural pollution, while the supply of fresh water is causing problems in some areas of the EU.

Disposing of the billions of tonnes of waste produced by our consumer society is another huge challenge. In the EU alone, more than 21 million tonnes of toxic waste have to be treated each year.

The European Union is the world's biggest trading power, with the largest integrated market. Its Member States and their citizens have reached a significant level of economic well-being. The Union is therefore better placed than many countries and regions to put its own house in order and to give a lead to others.

Environmental problems are posed in different terms in different parts of the world. In the EU and other advanced countries, the essential goal is to change consumption patterns. In central and eastern Europe, years of **neglect** and under-investment in pollution control has left a

heritage of environmental degradation on the Union's doorstep which is now a primary target for EU action. Those countries which have applied to join the EU will have to **adopt** the existing body of EU environmental regulation before becoming members. This in itself will mark a significant step forward towards improving the environment in the EU. In developing countries, population pressure and **poverty** have created unsustainable development patterns.

The internal and external **dimension** of the EU's environment policy are **inextricably** linked. The Union therefore has to play a leading role in the UN and other international bodies. In this context, the Commission published in February 1996 a policy paper on Trade and the environment,' setting out ways in which free trade and environmental requirements can be **mutually** supportive and not **contradictory** as some people fear.

There is a **perceptible** feeling in Europe and further **afield** that many of the great environmental battles will be won or lost in the next ten years. If we do not act in the beginning of the 21st century, it may be too late.

<http://www.help.su/press/news3915.htm>

II. Learn the vocabulary

afield – в поле

concerned – обеспокоены

share – разделять, участвовать

sustainable – зд. экологически рациональный

consumption pattern – модель потребления

depletion – истощение

corrective – корректирующий

promote – способствовать

responsibility – ответственность

prevent – предупреждать

reverse – изменять на прямо противоположное

seek – прибегать (к чему-либо)

coalition – объединение

consumer – потребитель

commitment – обязательство

dispose of – распоряжаться

frontier – граница
engaged in – заинтересованный
prosperity – процветание
deplete – исчерпывать
by-product – побочный продукт
interrelated – взаимосвязанный
release – зд. выброс
fossil – ископаемый
consequence – следствие
cancer – *мед.* рак
further – более того
extinction – вымирание
species – *био.* вид, виды
neglect – запущенный
heritage – наследие
adopt – принимать
poverty – бедность
dimension – сторона
inextricably – запутанно
mutually – взаимно
contradictory – противоречащий, несовместимый
perceptible – понятный

III. Answer the questions:

1. Why are the Europeans concerned about the state of the environment?
2. What is the focus of EU environmental policy?
3. What does the EU promote? What for?
4. What is the challenge for Europe today?
5. What are the main environmental threats?
6. What global action should be taken to save the environment?

IV. Give the Russian equivalents:

concerned about; sustainable development; corrective action; integrated approach; environmental degradation; knows no frontiers; by-products; carbon dioxide; well-being; under-investment; external dimension.

V. Give the English equivalents:

состояние окружающей среды; озоновый слой; охрана окружающей среды; экономическая деятельность; будущие поколения; глобальное потепление; ископаемое топливо; развивающиеся страны.

VI. Fill the gaps with the words from the text:

1. European citizens are (c)..... about the state of the environment.
2. Climate change and the (d)..... of the ozone layer are two instances where the limits of (s)..... may have been exceeded.
3. We are (e)..... in a race against time.
4. Our environment is (t)..... in many ways.
5. The (q)..... of water is another growing problem.
6. The internal and external (d)..... of the EU's environment policy are inextricably (l).....
7. If we do not (a)..... in the beginning of the 21st century, it may be too late.

VII. Make up a note of two things which impressed you most of all. Compare your ideas with your partner's ideas. Discuss them in pairs.

BRITAIN FOR ALL SEASONS

I. Read and translate the text.

The real Britain is a land of unspoilt beauty, where the mood and rhythm of the countryside changes from one region to another, and from season to season.

Summer is the season of long, long days, when a variety of pastimes and pursuits can be enjoyed. The beach is a favorite place to relax and the more active will find an exciting range of water sports in Britain, from gentle sailing to the action-packed sport of jet-skiing. The warm summer months are an ideal time to enjoy the delights of eating out-side, a stroll of peaceful rural surroundings or a leisurely round of golf. Make the most of the fresh air by

cycling along pretty country lanes or by taking a boat trip on one of Britain's many rivers, canals and lakes. Or for the more daring, how about taking a balloon trip and enjoying the view of the countryside from the air. There are so many attractions to choose from in the summer months – from pageant and tradition to a host, of arts festivals.

In autumn the British landscape assumes a breathtaking beauty and it is a perfect time of the year for outdoor activities such as walking, golfing and cycling. The game shooting season is also in full swing and many hotels can; arrange for you to participate.

As the days become cooler you may prefer to make the most of the varied entertainment, provided by Britain's towns and cities. Enjoy a visit to the cinema, theatre or perhaps a classical concert.

In rural communities, autumn is the time to gather in the crops. Take a peek inside some of Britain's churches and. cathedrals, which will be decorated with flowers and fruit for the harvest festival. Fireworks and bonfires will illuminate the sky during the evening of November 5" This is to commemorate the unsuccessful attempt to blow up the Houses of Parliament by Guy Fawkes in 1605.

Winter heralds the season of Christmas festivities. Towns and cities countrywide are brightly decorated for the occasion. Shopping is always a delight at this time of the year, when the shops are full of fascinating Christmas goods and window displays of large department stores will delight all ages. You will also find many indoor shopping complexes around the country, which make looking for gifts a real pleasure whatever the temperature outside. After Christmas is the season of annual sales when both travel and shopping bargains are to be found.

Britain has a vast array of museums and galleries countrywide, and winter is an excellent time to see them when the flock of summer visitors has dispersed. Many stately homes also remain open throughout the year.

Springtime sees the countryside bloom and radiate with life. Daffodils, bluebells and primroses can be seer, on hillsides and in the fields everywhere. The brightest warmer days see the return of many birds who migrated during the winter and the woodlands and meadows come alive with their songs. It is one of the loveliest times of the year to visit Britain and appreciate the outstanding countryside.

Riding is an exhilarating pastime to enjoy in the spring months and keen fishermen will find some of the world's game fishing rivers in Britain.

From "A book of Britain" by E. Lesneva.

II. Remember these words:

unspoilt beauty – неизменная красота
variety of pastimes – разнообразные развлечения
balloon trip – путешествие на шаре
attraction – аттракцион
pageant – маскарад
host – шествие
landscape – пейзаж
assume – превращаться
breathtaking – потрясающий
arrange – устраивать
provide – обеспечивать
peek inside – заглянуть в
firework – фейерверк
unsuccessful attempt – безуспешная попытка
herald – возвещать
indoor shopping – покупка не выходя из дома
annual – ежегодный
radiate – излучать
daffodil – нарцисс
bluebell – колокольчик
primroses – подснежник

III. Answer the questions:

1. What sports in summer can be enjoyed?
2. Are walking, golfing, shooting and cycling autumn sports?
3. What do you prefer when the days become cooler?
4. How are the churches and cathedrals decorated for the harvest festival with?
5. When are Christmas festivities taken place? Is shopping a delight at this time?
6. Do museums and galleries remain open throughout the year?
7. What flowers can be seen on hillsides and in the fields everywhere?

IV. Give the Russian equivalents:

a land of unspoilt beauty, countryside, relax, exciting, range of water sports, jet-skiing, balloon trip, pageant, landscape, breathtaking, peek inside, commemorate, delight, fascinating, shopping complexes, annual, bargain, daffodil, bluebell, primroses, exhilarating pastime.

V. Translate from Russian into English:

земля неизменной красоты; разнообразные развлечения могут составить; пляж – место, где можно расслабиться; парусный спорт; катание на водных лыжах; пикник – это удовольствие; гольф, катание на велосипеде, прогулка на яхте; прогулка на воздушном шаре; маскарад и шествие фестивалей; осень – время сбора урожая; Рождество – зимний праздник; покупки – это всегда удовольствие в канун Рождества; после Рождества – сезон распродаж; музеи и галереи всегда открыты круглый год; весной можно увидеть цветение нарциссов, колокольчиков и подснежников; леса и луга оживают, когда поют птицы; верховая езда и рыбалка – прекрасное развлечение весной.

VI. Find the material about all seasons in Britain and give a talk.

WEATHER

I. Read and translate the text.

Weather is the state of the atmosphere at some place and time. We describe the weather in many ways. For example, we may refer to the temperature of the air, whether the sky is clear or cloudy, how hard the wind is blowing, or 'whether it is raining or snowing. At any given time, the weather is fair in some places, while it rains or snows in others.

Weather differs from climate. It is a composite of the average other conditions of a locality or region over a long of time (at least 30 years).

Earth is not the only planet with a variety of weather conditions. Every planet in the solar system except Mercury and perhaps Pluto has enough of an atmosphere to support a weather system. Titan, a moon of the planet Saturn, has such an atmosphere. Pluto is so far that little is known about its atmosphere.

The weather affects our lives every day. For example, it can have an impact on what type of clothing we wear and how we spend our free time. Freezing place over a short period of time. Such conditions include humidity, precipitation, temperature, cloud cover, visibility and wind, together with extreme phenomena such as storms and blizzards. Just as summer days can often be, cool, so there are occasional cool days in the tropics. But the weather in the tropics is usually warm – just as the weather in the Arctic is usually cold. Temperatures can damage citrus crops in Florida or Spain, causing a rise in the price of oranges at the grocery store. Winter snow often create hazardous driving conditions. Thick fog may slow traffic on the roads and cause delays at airports. Our use of air conditioning, during heat waves and heating during cold weather means that utility companies must supply more power at those times. Meteorology is the study of short-term weather patterns and data within a circumscribed area. Because of the weather's importance, meteorologists (scientists) who study the atmosphere and the weather have ways to forecast weather conditions. Forecasts for the next 12 to 24 hours are correct more than 80 % of the time. These fore- casts indicate general trends, such as whether or not temperatures are expected to be warmer or colder than normal.

Earth satellites relay information, collected by special instruments, about atmospheric conditions all around the world. Closely related to weather is climate. Climate is the weather of a place averaged over a length of time. Scientists determine a region's climate by examining its vegetation, average monthly and annual temperature, and average monthly and annual precipitation.

For example, in various parts of the world, we find deserts; tropical rain forests; prairies: forests of cone-bearing trees; frozen, treeless plains; and coverings of glacial ice. Unlike changes in the weather, which can occur in minutes, climate changes generally take many years. As a general rule, the nearer you are to the Equator, the warmer the climate is. This is because at lie Equator, the Sun is high in the sky at midday and its rays are warm. Away from the Equator, it climbs less high and gives less warmth. The effect is to give three broad climate zones on either side of the Equator: the warm tropics, the cold Polar Regions, and the temperature zone in between.

From "English for Geography" by Eremina V. A.

II. Remember the words:

climatic conditions – климатические условия
humidity – влажность
precipitation – осадки
cloud cover – облачность
visibility – безоблачность
extreme phenomena – экстремальная ситуация
storm – шторм
blizzard – буран
occasional – случайный
average – средний
affect – влиять
damage – ущерб
causing – причина
heat waves – жара
heating – отопление
forecast – предсказывать
indicate – указывать
closely related – тесно связанный
determine – определять
occur – случаться

III. Translate from English into Russian:

1. Weather is the state of the atmosphere at some place.
2. Such conditions include humidity, precipitation, temperature, cloud cover, visibility and extreme phenomena.
3. Weather differs from climate.
4. Every planet has enough of an atmosphere to support a weather system.
5. The weather affects our lives every day.
6. Winter snow create hazardous driving conditions.
7. This fog may slow traffic on the roads.
8. Meteorology may forecast weather conditions.
9. Climate is the weather of a place averaged over a length of time.
10. The nearer you are to the Equator the warmer the climate is.

IV. Find English equivalents in the text.

1. Мы можем определить температуру воздуха, ясно или об-

лачно, с какой силой дует ветер, идет ли снег или дождь.

2. Погода может повлиять на то, что мы носим или как проводим время.

3. Заморозки могут повлиять на урожай цитрусовых и стать причиной повышения цен на цитрусовые в магазинах.

4. Зимой снег создает опасные условия для вождения автомобилей.

5. Метеорологи могут предсказывать погоду.

6. Ученые определяют климат в регионах, изучая растительность, среднемесячную и среднегодовую температуру и осадки.

7. Чем ближе вы к экватору, тем теплее климат.

THE STUFF OF LIFE

I. Read and translate the text.

In their attempts to solve the mysteries of life, scientists have given much attention to the jellylike living material of the cell. This substance is called protoplasm. They have studied it under high-powered microscopes; broken it down into its basic chemicals; treated it with dyes and electric currents; and dissected it with microscopic needles. Yet no one has succeeded in making any protoplasm. It is one of the most complicated of all substances. We have learned many facts about it, but there are still many secrets to be discovered. Scientific research goes on, because protoplasm is the key to a real understanding of life.

Under the microscope, protoplasm is an almost colorless substance. At times it is quite liquid, but it can easily change to a more solid jelly. All the living parts of the cell, including the cell membrane, the cytoplasm, and the nucleus are made of protoplasm. With a high-powered microscope we can see many small particles and bubbles floating in the jelly. These are often in rapid motion.

The chemical nature of protoplasm is not exactly known. Unfortunately, when chemists begin to analyze it, it usually dies. This brings about changes in the material they are studying. We do know that protoplasm is usually more than 75 per cent water. There are also salts and food materials such as sugars, fats, and proteins. Four chemical elements make up 98 per cent of protoplasm. These are carbon, oxygen, hydrogen, and nitrogen. More than 15 other elements have been found.

All of these are the common elements of which our earth is composed. There are no special elements that are found only in protoplasm. But such, rare elements as strontium (Sr), rubidium (Rb), tin (Sn), nickel (Ni), gold (Au) and mercury (Hg) may enter into the composition of protoplasm as well. Where the soil is especially rich in certain minerals, the plants growing there may incorporate them, and they may find their way into the tissues or hard parts of animals that feed upon the plants. In some parts of the world gold is particularly abundant in the soil, and the hoofs, horns and hair of the deer living on the vegetation in these regions show relatively large accumulations of it. Radioactive elements in some regions are accumulated in the mosses and in vegetation of the region. These plants are the food for many animals and analysis shows that these animals are also accumulating radioactive particles in their tissues. The food chain is extended to people living in these regions who feed upon these animals and in turn incorporate the particles in their own tissues. As a result their bodies contain a relatively high amount of radioactive particles as compared with the population in general.

As a summary it should be noted that protoplasm is a very complicated mixture of many kinds of substances. These are in constant activity, carrying on the processes of life. When the activity stops, life comes to an end.

From "Biology and Human Progress"
by L. Eisman, Ch. Tanzer.

II. Learn the meaning of the words:

mystery
attention
jellylike
high-powered
succeeded
complicated
research
colourless
liquid
unfortunately
analyse
common
especially

incorporate
abundant
tissue
extended
relatively

III. Give the English equivalents:

тайна
внимание
желеподобный
высокосильный
достигать цели
сложный
исследование
бесцветный
жидкий
к несчастью
анализировать
общий
особенно
объединятся
изобильный
ткань
простираться
относительно

IV. Find English expressions in the text for the following:

попытка решить тайну жизни; почти бесцветная субстанция; изучение под микроскопом с высокой разрешающей способностью; препарирование иглами и воздействие электрическими потоками; быстрое движение; редкие элементы; особенно изобильный; аккумуляция радиоактивных частей; сложная смесь различных частей субстанции.

V. Translate the following sentence:

1. Yet no one has succeeded in making any protoplasm. It is one of the most complicated of all substances.
2. Under the microscope, protoplasm is an almost colourless substance.

3. With a high-powered microscope we can see many small particles and bubbles floating in the jelly.

4. Where the soil is especially rich in certain minerals, the plants growing there may incorporate them, and they may find their way into the tissues or hard parts of animals that feed upon the plants.

5. As a result their bodies contain a relatively high account of radioactive particles as compared with the population in general.

VI. Answer the questions:

1. Do you know the meaning of the word “protoplasm”? What does it mean?

2. Do you know all the living parts of the cell?

3. What is the almost colorless substance under the microscope?

4. How many chemical elements make up 98 per cent of protoplasm?

5. What kind of chemical elements make up 98 per cent of protoplasm?

6. What kind of rare elements may enter into the composition of protoplasm as well?

7. What kind of elements in some regions are accumulated in the mosses and in vegetation of the region?

8. Why is the protoplasm a very complicated mixture of many kinds of substances?

VII. Give the Russian equivalents:

protoplasm, substance, microscope, liquid, solid jelly, cell membrane, cytoplasm, nucleus, sugars, fats, proteins, carbon, oxygen, hydrogen, nitrogen, strontium, rubidium, tin, nickel, gold, mercury, soil, hoofs, horns, mixture, tissue.

VIII. Give the main points of the text and write a short report about it.

CHARLES DARWIN

I. Read and translate the text.

Charles Darwin was born in Shrewsbury, England in those days schools did not teach science as they do today Twelve-year old Dar-

win, 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 clergyman 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 remembers 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 and animals. The more facts he gathered from different parts of the world, the more he became convinced that things he observed in nature could not be explained by the old idea that each species had been separately created.

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 mainland species must have traveled from the mainland 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 occurred 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.

From "Men, Microscopes and Living Things"
by K. B. Shippen.

II. Learn the notes to the text:

to fail – не доставать, не удаваться; ослабевать
his heart was failing – его сердце слабело
he failed his exams – он провалился на экзаменах
he failed to appear – он не появился
he managed to come – ему удалось прийти
without fail – непременно, обязательно
I succeeded in – мне удалось...
care – забота, попечение
to take care of – заботиться
I don't care – мне все равно
he cared for nothing but – он ни о чем не думал, кроме...
to look – смотреть, выглядеть
to look for – искать
to look after – присматривать за кем-то
to look at – смотреть на, обращать внимание
to look like – походить на

III. Read the following words and guess their meaning:

collection, history, doctor, naturalist, voyage, captain, cabin, theory,

evolution, idea, reason, publication, detail, selection, poetry, interest, realise, especially, collect, assimilate, microscope, include, division, product, differ, direct, care, possible, publish, observer, evolution.

IV. Give the English equivalents:

изучать науку; двенадцать лет отроду; медицинская школа; путешествие вокруг света; теория эволюции; различные части света; следующие двадцать лет он вел дневник; мир живых существ; были опубликованы; теория естественного отбора; новые факты эволюции; все в этом мире меняется и растет; только после смерти; бесполезная теория; последние детали.

V. Translate the following sentences into English:

1. Чарльз Дарвин родился в Англии.
2. Любимым занятием Дарвина было собирать растения и наблюдать за животными.
3. Дарвин должен был стать доктором, но совершенно не интересовался медициной.
4. Однажды он услышал, что корабль должен был совершить поездку вокруг света.
5. Он продолжал собирать новые факты, и чем больше работал, тем яснее видел связь в происхождении разных видов животных.

VI. Answer the following questions:

1. What do you know of Darwin's childhood?
2. What kind of sport was he fond of?
3. Why was he sent to Cambridge?
4. Who urged him to apply for a job of a naturalist? What was the opinion of his father about his voyage?
5. What was the purpose of the "Beagle's" sail?
6. What puzzled Darwin during his sail?
7. What countries and islands did the "Beagle" visit?
8. When did Darwin begin to think about his theory of evolution?
9. What in Darwin's opinion led to a constant fight for life?
10. Did his book "The Origin of Species by Means of Natural Selection" cause a sensation and why?
11. What other books by Charles Darwin do you know? Have you read them?

12. Do you know where Ch. Darwin is buried?
13. There were differences between animals and plants on the mainland and those on the island? What did Darwin think about it?
14. Say what you know about the biography of other biologists?
15. Speak about your hobby. What are you interested in?

ANIMALS AND PLANTS

I. 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)

1. One-celled animals
2. Sponges
3. Cup animals (jelly-fishes and corals)
4. Spiny-skinned animals (starfishes and their relatives)
5. Worms
6. Mollusks (oysters, snails, squids)
7. Jointed-legged animals (lobsters, spiders, insects)

B. Vertebrates (Animals with backbones)

1. Fishes
2. Amphibians (frogs, toads, salamanders)
3. Reptiles (snakes, lizards and turtles)
4. Birds
5. Mammals

The plant kingdom includes tiny one-celled plants that can be seen only with a powerful microscope and the great redwood and sequoia 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 neighbors.

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 have no chlorophyll. They must get their food from other plants and animals.

From "Biology and Human Progress" by L. Eisman, C. Tanzer.

II. Learn the notes to the text:

in this way – таким образом

in turn – с свою очередь

up to the present moment – до настоящего времени

to take care – заботиться

for example – например

III. Read the following words and guess their meaning:

number, medicine classification sort, tiger, leopard, structure, actively, effect, matter, detail, family, utilize, foundation, million, microorganism, type, cultural, contribution.

IV. Supply the nouns corresponding to the following verbs:

to construct, to engage, to develop, to include, to estimate, to differ, to resemble, to provide, to know, to divide, to derive, to depend, to discover, to vary, to acquaint, to define, to value, to specialize, to describe, to classify, to act.

V. Translate the following word-combinations into Russian:

to do one's best, to be certain, in spite of, to keep track, in common, no matter, in turn, according to, in this way, to take care, to be of great value, to keep healthy, of the same sense.

VI. Answer the questions:

1. How many different kinds of animals and plants exist in the world?
2. Why is the classification of living things necessary?
3. How are living things sorted into groups?
4. What are the differences between animal and plant kingdom?
5. How do men use plants and animals?

VII. Give the English equivalents:

некоторые ученые, многие из них обеспечивают нас пищей, включая несколько типов, анализ ученых, биологи, системы классификации, животные отсортированы в группы, плотоядные животные, утоляющие плоть, королевство животных, других животных, беспозвоночные организмы, водоросли, хлорофилл, грибы.

VIII. Translate into English:

Ученые утверждают, что существует более миллиона различных видов растений и животных. Растения и животные сильно отличаются друг от друга размерами, видом, цветом и т. д. Эти различия хорошо видны, если сравнивать растения, травы, деревья, цветы или различных насекомых, птиц, рыб, людей. Несмотря

тря на все различия, живые организмы имеют много общего. Как растения, так и животные зависят друг от друга в поддержании жизненных функций.

IX. Write a summary of the text.

THE CELL

I. Read and translate the text.

The unit of protoplasmic 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 microscopists 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.

*From "Biology and Human Progress"
by L. Eisman and Ch. Tanzer.*

II. Read the following words and guess their meaning:

protoplasmatic, organization, substance, individual, general, chemistry, accurate, material, crystal, classical, membrane, concept, region, population, mixture.

III. Find English expressions in the text for the following:

единство протоплазменной организации; один из первых ученых; недавно изобретенные биологические инструменты; микроскопические исследования; обсерватории классической микроскопии; всеобщее внимание; предшествующие столетия; атомная теория.

IV. Translate the following sentence:

1. The unit of protoplasmatic organization is the cell.
2. 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.
3. This concept was first brought to general attention in 1838.
4. It was a natural outcome of the many observations that had been made during the early part of the nineteenth and the preceding centuries.
5. This theory was to biology, at that stage of its development, what Dalton's atomic theory was to chemistry.

V. Answer the questions:

1. Do you know the meaning of the word cell? What does it mean?
2. What do you say about small compartments of cork slice?
3. Do you know the name 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?
4. What kind of Hook's microscopic materials for study do you know?
5. When was the concept of cell theory first brought to general attention?

ENVIRONMENTAL PROTECTION

I. Read and translate the text.

We all love our native land, beautiful nature with its blue lakes and

of rivers, thick forests, with its animal and plant kingdom. We are children of nature and we must be very careful in usage of natural resources. People have lived on our planet for many years. They lived and live on different continents, in different countries. People depend on their planet, on the sun, on animals and plants around them. People must take care of Earth. Our ecology becomes worse and worse with every new day. People destruct wildlife, cut down trees to make furniture. They forget that people can't leave without trees and plants, because they fill air with oxygen. And, of course, great problems are population and animals' destruction. The main reason of pollution is rubbish. Most our rubbish go to big holes in the ground, called "dumps". But dumps are very dangerous for our life because they are full of rats, which can carry infections away from dumps. Another way to get rid of rubbish is to burn it. But the fires make poisons, which go into the air and pollute it. And the seas are in danger too. They are filled with poison: industrial and nuclear waste. The Mediterranean is already nearly died: the North Sea is following. If nothing is done about it one day nothing will be able to live in seas. Every ten minutes one kind of animal or plant dies out forever. Of course, people can't stay indifferent to these problems. There a lot of special organizations, which try to save our nature. One of them is Greenpeace. Greenpeace began its work 20 years ago from saving whales. And now Greenpeace is a world-famous organization, which saves plants, animals and people. These organization, want to rescue animals, to help them to survive and to save jungle rain forests, which are in danger of destruction. And they also help animals because many of them have already gone as they have nowhere to live. Their homes, the trees, have disappeared. We must save wild animals. And we must find the right way to save land, people and animals. We must take care of nature, because we are part of it. People are beginning to realize that environmental problems are not somebody else's. They join and support various international organizations and green parties. If governments wake up to what is happening – perhaps we'll be able to avoid the disaster that threatens the natural world and all of us with it.

<http://www.englishlanguage.ru/index.php>

II. Learn the meaning of the words:

usage – использование

depend on – зависеть

take care – заботиться
worse – хуже
destruct – разрушать
oxygen – кислород
rubbish – отходы
infection – инфекция
poison – яд
nuclear waste – ядерные отходы
indifferent – равнодушный
rescue – спасать
survive – существовать, выживать
disappear – исчезать
support – поддерживать
government – правительство
avoid – избегать
disaster – катастрофа
threaten – угрожать
be careful – быть осторожным
to get rid of – освобождаться

III. Find English expressions in the text for the following:

Мы должны очень осторожно использовать природные ресурсы; люди разрушают дикую природу; люди не могут оставаться равнодушными к этим проблемам; люди зависят от своей планеты; другой способ избавляться от мусора – это сжигать его; продукты горения могут быть токсичными, они попадают в воздух и отравляют его; «Гринпис» – специальная организация, которая пытается спасти природу; каждую минуту один вид животного или растения исчезает навсегда.

IV. Translate the following sentences:

1. Dumps are very dangerous for our life because they are full of rats, which carry infections away from dumps.
2. Greenpeace began its work 20 years ago from saving whales.
3. If nothing is done one day nothing will be able to live in seas.
4. If government wake up to what happening – perhaps we'll be able to avoid the disaster that threatens the natural world and all of us with it.

V. Answer the questions:

1. How do people destruct wild life?
2. What are the great problems of the environment?
3. What does “dumps” mean? Why are they dangerous?
4. What poison are the Mediterranean and the North Sea filled with? What will happen if nothing is done about it?
5. What special organizations, which try to save our nature do you know?
6. What is Greenpeace doing now?
7. How do people support various international organizations and green parties?

VI. What measures should be taken for saving animals and plants? Compare your ideas with your partner’s ideas. Discuss them in pairs.

THE WORLD ENVIRONMENT

I. Read and translate the text.

The world environment means simply what is around us. Some people live in towns, the others in the country. There are a lot of ecological problems. The most serious ecological problems are: noise from cars and buses; destruction of wild life and countryside beauty; shortage of natural resources; the growth of population; pollution in its many forms for example water pollution: water is everywhere, but there is no ocean or sea which is not used as a dump. Many rivers and lakes are poisoned too. Fish and reptiles can’t live in them. People can’t drink this water. So we have to clean the water environment. But it is not the only problem with pollution. Another problem is air pollution. Air pollution influences the health of people. There a lot of dangers. For example: ultraviolet radiation from the sun can cause skin cancer. Normally the ozone layer in the atmosphere protects us from such radiation, but if there are holes in the ozone layer ultraviolet radiation can get to the earth. Many scientists think that these holes are the result of air pollution. Also we have problem with nuclear pollution.

Nuclear pollution cannot be seen but its effect can be terrible. To make air clean again we need good filters at nuclear power stations, at factories, in cars and buses. Another problem is growth of population. They don't have enough places to live. They need more water, more food. So it is the reason of the shortage of the natural resources. It is very difficult to solve this problem. Also one of the most serious problems is green house effect. It works like this: sunlight gives us heat. Some of the heat warms the atmosphere and some of the heat goes back into space. Nowadays the heat can't go into space. That's why winter and summer temperatures in many places have become higher. If the temperature continue growing up the snow on the mountains and ice will melt, so the most of the earth will be under water. So every person has to understand how important it is to solve this problems, that endanger people's life. For example I try not to throw out in our city.

<http://www.englishlanguage.ru/index.php>

II. Learn the meaning of the words:

environment – окружающая среда

noise – шум

destruction – разрушение

shortage – недостаток

reptile – млекопитающее

influent – влиять

dangerous – опасный

ultraviolet radiation – ультрафиолетовая радиация

nuclear – ядерный

solve – решать

green house effect – парниковый эффект

heat – тепло

III. Find English expressions in the text for the following:

Воздушные загрязнения влияют на здоровье людей; нехватка природных ресурсов; многие реки и озера отравлены; ультрафиолетовая солнечная радиация может стать причиной рака кожи; озоновый слой защищает от радиации; эффект от ядерного загрязнения ужасен; парниковый эффект – серьезная проблема.

IV. Translate the following sentences:

1. The world environment means simply what is around us.
2. Air pollution influences the health of people.
3. Ultraviolet radiation can cause skin cancer.
4. To make air clear we need good filters at nuclear power stations, at factories, in cars and buses.

V. Answer the questions:

1. What ecological problems are there in the world?
2. What must we do to clean the environment?
3. How does air pollution influence the health of people?
4. What do we need to make air clean?
5. What is the reason of the shortage of the natural resources?
6. How does green house effect work?
7. How do you solve the problem of the environment protection?

VI. Speak about all kinds of pollution and suggest your solution to every problem.

BIOLOGY

I. Read and translate the text.

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 seas, 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.

From "Biology and Human Progress"
& by L. Eisman, C. Tanzer.

II. Learn the notes to the text:

in the same sense – в том же смысле, что и...
of the same kind – того же вида, сорта
to be certain – быть уверенным
no matter – неважно, безразлично
in spite of – несмотря на

III. Read the following words and guess their meaning:

special, zoology, organize, fundamental, microscope, accumulate, basic, oxygen, principle, respiration, fact, reproduction, process, temperature, region, manner.

IV. Supply the Infinitives of the following verbs:

told, gave, known, made, led, came, thought, taken, called, climbed, put, written, included, defined, saw.

V. Form adverbs from the following adjectives and translate them: inclusive, scientific, definite, different, special, certain, common, fundamental, apparent.

VI. Find English expressions in the text for the following:
специальная наука о растениях; два больших раздела науки биологии; существуют некоторые фундаментальные отличия между жизнями растений и животных; заключенная в протоплазме; базовый материал всех живых систем; жизненные процессы; микроскопические объединения; разнообразные формы жизни.

VII. Translate the sentences into Russian:

1. Both functions of this organ are important.
2. Both water and air are necessary for the living organisms.
3. General properties of protoplasm are the same both in plants and animals.
4. Both plants and animals cannot live without water.
5. Both these plants are of the same shape and size.

VIII. Translate into English:

Живые организмы могут жить в различных условиях. Некоторые живут при очень высоких температурных условиях, а другие легко переносят сильные морозы. Все они должны были приспособиться к окружающей среде. Биология изучает жизненные процессы как у животных, так и у растений. Эти два больших подразделения в биологии называются ботаникой и зоологией. Как растения, так и животные должны иметь определенные условия для существования. Как животные, так и растения не могут жить без воздуха, воды, пищи и света. Одинаковые жизненные процессы имеют место как у животных, так и у растений. Эти процессы называются дыханием, пищеварением, ростом и размножением. Очень важный принцип живых организмов – это способность реагировать на внешние раздражения. Животные реагируют на внешние раздражения через нервную систему и органы чувств. Растения также приспосабливаются к окружающей среде и реагируют на внешние воздействия. Однако механизм ответной реакции раздражения сильно отличается от животных.

IX. Translate the following sentence:

1. Most of the animals have great importance for man.
2. Bodies of plants and animals contain inorganic substances.
3. We shall consider plants and animal together.
4. Biology has become more dependent on other sciences.
5. Certain vital processes take place in plant body every season.
6. These plants differ greatly in size.

X. Answer the 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 defined?
6. Do you know the meaning of the word “cell”? What does it mean?
7. Do plants and animals depend upon one another?
8. How do plants or animals differ from lifeless things?

XI. Compose short dialogues for the following imaginary situations:

1. The boy next door is in the fifth form. He states that he studies botany but not biology. Explain his mistake to him.
2. Your friend alleges that there is no life on the bottom of deep seas. Prove that life exists nearly everywhere on earth. What evidence can you give to prove it?
3. One of your friends believes that only animals are living organisms, another one thinks that both animals and plants are alive with no difference. Are they right? Why? Discuss the ways in which living things differ from lifeless objects.

Read and translate the text

YORK

York is everyone's favourite city – and no wonder. Nearly two thousand years of history have left us a wealth of streets and buildings which tell the colourful story of England and its traditions.

In York you can become a part of the past; viewing Roman re-

mains at the Yorkshire Museum, **sampling** the Viking way of life at the Jorvik Viking Centre, doing business at the 14th-century Merchant Adventurers Hall or window-shopping in a typical Victorian street at the Castle Museum.

Towering over everything else in the city is the magnificent cathedral York Minster – not just a marvellous work of architecture but a busy working church. Famous for its stained glass, the Minster is wonderfully light and airy and from the top of the tower you have fine-views over the city and the whole Vale of York.

But historic buildings, museums and other reminders of the past are only part of York's attractions. The compact city centre provides interesting shops of all types and a **thriving** open-air market adds to the pleasure of **browsing** and buying, the whole area is free of traffic for most of the shopping day, Sunday included. There are parks which you will share with squirrels, peacocks and the friendly people of York and their visitors from all over the world.

York has restaurants for many tastes, plus a lot of friendly cafes. As for pubs, most of them serve good Yorkshire food as well as the traditional drinks including locally – brewed ales.

LARNACA

Larnaca is the oldest town in Cyprus. Its name is derived from the word “larnax” which means tomb or sarcophagus, a great number of which are to be found in the area.

Larnaca, from the time of its founding, lives and grows from its original location. Present-day Larnaca is built over the ruins of the ancient city-kingdom of Kitium which, according to legend, was founded by Kittim the grandson of Noah.

From the early dawn of history Larnaca attracted many visitors. Some came as colonizers, others as peaceful traders, like the Phoenicians, those mysterious merchants from ancient Lebanon, and others as invaders and conquerors like the Persians, the Romans, the Turks and finally, the British.

Moving swiftly through a fascinating history to more modern times, by the time of the British rule in Cyprus in 1878 Larnaca became the leading port and the diplomatic capital of the island.

The commercial and shopping centre of the town lies behind the promenade. Today the town offers a great variety of goods to buy and

take back home; jewellery, leather goods including jackets, handbags and leather shoes, as well as souvenirs such as pottery, icons and famous lace.

Visitors are also well catered for with a wide range of restaurants. Sun and sand fans will be in their element here. All along the coast of Larnaca are beautiful sandy beaches which provide safe bathing for families while the shoreline is dotted with modern **luxurious** hotels.

GLASGOW

Welcome to Glasgow, Scotland's largest city. Glasgow with its fine buildings, excellent shopping, beautiful museums and art galleries attracts thousands of visitors every year from every corner of the globe.

The city is an ideal centre. There is plenty to see and to do and it is within easy reach of many other holiday spots.

Glasgow itself stands as a monument to Victorian architects, yet modern day planners have gently woven a twenty first century heart into this busy bustling friendly metropolis.

Visitors do not have to look far for evidence of more than 800 years of colourful history. Glasgow Cathedral, dating in part to the 12th century, contains the tomb of St Mungo, the patron saint of Glasgow. Glasgow University was founded in 1451 and is the fourth oldest in the United Kingdom. Glasgow's civic buildings, the City Chambers, dating from 1883, contain priceless examples of Italian marble, mosaics and Venetian leaded glass. Situated on George Square, the building is typical of the fine Victorian heritage which can be seen throughout Glasgow.

The city centre shops are a big attraction. Well known streets contain pedestrian precincts where shopping is a pleasure.

There is a wide choice of entertainment; with theatres, ballet, opera, concert halls, cinemas, restaurants, pubs and all kinds of sport.

In fact Glasgow has something to suit.; people of all tastes and ages.

DUBLIN

Dublin has unforgettable character and undeniable charm. See it once and you'll want to come back. Not just to see the sights – two great cathedrals, a famous university, a palatial castle, museums with unequalled collections of art and archaeology, and countless other pleasures such as visit to the Guinness brewery – but to soak up the atmosphere of its Georgian streets and ornate old-fashioned pubs.

Rich farm country stretching away north from the city is dotted with some of Ireland's most important historic sites. You'll find the ruins of great monasteries and one of the most important remnants of Neolithic civilisation in Europe – the 5,000 year-old Newgrange burial chamber.

Today Dublin is a vibrant, cosmopolitan city and Ireland's cultural hot spot. Take in a play at the Abbey Theatre, walk in the steps of the many great Dubliners, writers and dramatists from Sheridan and Swift to George Bernard Shaw, Oscar Wilde, James Joyce, and many others. Their native city will inspire and delight you.

Dublin is a city of magnificent charm and unique sights. You should spend a few days wandering around to soak up the atmosphere of this great city.

Dublin is famous for a massive celebration of St Patrick's Day on March 17 which attracts about 40,000 spectators to the spectacular two-hour parade in Dublin each year.

II. Translate the following words and memorize them:

no wonder
viewing Roman
sample
magnificent
marvelous
busy working church
compact
thriving
Cyprus
tomb
sarcophagus
Phoenician
Lebanon
Persians
Turks
offer
icon
lace
luxurious
globe
bustling

chambers
marble
mosaic
Venetian
heritage

III. Find English expressions in the text for the following:

не удивительно, церковь, цветное стекло, удовольствие рассматривать, местное сваренное пиво, следуя легенде, загадочный купец, покровитель святого.

IV. Translate the following sentences:

1. York is everyone's favorite city.
2. In York you can become a part of the past.
3. The commercial and shopping centre of the town lies behind the promenade.
4. All along the coast of Larnaca are beautiful sandy beaches which provide safe bathing for families while the shoreline is dotted with modern luxurious hotels.
5. Situated on George Square the building is typical of the fine Victorian heritage which can be seen throughout Glasgow.

V. Answer the questions:

1. Why is York favorite city of many people?
2. What does the compact city centre of York provide?
3. What does the word "larnax" mean?
4. When did Larnaca become the leading port and the diplomatic capital of the island? What does the town offer to buy today?
5. What does Glasgow attract thousands of visitors?
6. What evidence of more than 800 years can visitors see?

VI. Speak about these cities and their sightseeings.

BIRMINGHAM

Birmingham is one of the world's great cities. It is the third most visited city in Britain for visitors from overseas. In the heart of England, its inventors, industry and dynamism helped make Britain great.

Today, surrounded by reminders of its proud heritage, its people and visitors enjoy a modern multi-cultural city, full of life, art, culture, and the technologies of tomorrow.

Whether you're visiting Birmingham for business or pleasure, you will find it a fascinating city. There are so many things to do and places to visit there. You won't need to travel far to experience Britain's past. Birmingham's artistic heritage is **available** for all to enjoy.

You can take a trip to Cadbury World, a fascinating multi-media experience dedicated to the history of chocolate, or discover the secrets of the deep at the National Sealife Centre. Why not visit Birmingham's Art Gallery – home to the world's finest collection of Pre-Raphaelite art.

It's a pleasure just to **stroll** around Birmingham's city centre. The pleasant squares, **adorned** with many public works of art, are always bustling with activity, and there is a wide choice of seven-day shopping – from modern **malls** to traditional markets.

Three of the country's most prestigious venues for conferences and events really help to make Birmingham a city where the world meets.

Sport plays a big role in the life of Britain. The city is host to many sports clubs, associations and international events. For a relaxing stroll, an afternoon with a family or just a break from the bustle of the city Birmingham offers plenty of open spaces to choose from, all especially **accessible** from the city centre.

EDINBURGH

From the moment you arrive, Edinburgh's **stunning** skyline and magnificent architecture are **captivating**. The castle **clings** dramatically to its rock as the ancient buildings of the Royal Mile tumble down the spine of the hill to the splendid Palace of the Holyrood house. Across the green **expanse** of Princess Street Gardens lies the graceful Georgian New Town waiting to be explored. This is a historic setting – and yet in Edinburgh you'll find a friendly, modern, cosmopolitan city, where a warm welcome and an unforgettable experience await all the year round.

Take your time on the historic Royal Mile. **Wander** down **alley-ways** which are centuries old, many recalling a wonderful view, a pub to try or a museum to visit. Take an evening stroll, and you'll often experience the drama of Edinburgh by floodlight. At every turn there are things to discover: a theatre or concert to take in, art galleries and museums to explore and shops, cafes and restaurants to meet every

taste. But most of all you can **savour** the atmosphere of one of the world's great cities, as alive today as ever.

Variety is the spice of Edinburgh's life. Within a quarter of a mile you can leave the bustling centre for an **enchancing** riverside walk. The more you explore, the more this great city **rewards** you. Every visitor will find their own Edinburgh. All that can be said with certainty is that they will never forget it. In August Edinburgh becomes the cultural capital of the world attracting lots of tourists who want to watch the venues of Edinburgh International Festival of Music and Drama.

AMSTERDAM

Amsterdam is one of Europe's great cities. Amsterdam is a cosmopolitan centre with a fine way of life, a rich culture and its own style of humour. Amsterdam has history. Lots of it. The four main canals at the heart of city life haven't changed much since the 17th century. Nor have the other 100 canals – except that today they're lined by stylish cafes where you'll want to linger. But the first thing to do in Amsterdam is get on a boat. Gliding under the bridges, you'll really appreciate the **tranquil** beauty of the city and its waterways.

There's much more, too. You'll find world-class museums with wonderful works of art. Then there is the diamond industry. Several diamond merchants open their doors to visitors, offering a fascinating glimpse of the craftsmen at work and the chance to admire – and buy – the finished products. And when you've seen the small **gems**, you can see the big ones: the magnificent historic buildings of which Amsterdam has many. Amsterdam's architecture is really worth making time for.

Amsterdam is compact for a capital, so it's easy to enjoy it on foot. And a stroll is the perfect way to soak up the atmosphere of special city neighbourhoods.

And if you are tired of sightseeing, shopping and dining there's always the chance to relax and drink in the special ambience of Amsterdam's classic brown bars. Named for their dark brown interior, they're cosy, friendly, and full of what the Dutch call *Gezelligheid*.

BERGEN

Bergen is a city surrounded by mountains, a real city but with old world charm and atmosphere, wooden houses, narrow alleyways, a

busy harbour, and a **whiff** of **salty** sea in the air. Bergen is cosmopolitan, and rich in tradition and history. It's easy to see why those who are far from their beloved city get so homesick. Bergen is the gateway to the world-famous **fjords** and offers you a wonderful combination of pulsating city life and unforgettable scenic fjords. The choice is yours. Visit the Fish Market and enjoy fresh seafood, or stroll along the **quayside** and soak up the atmosphere of the old merchants' **quarter**. Take the **cable car** to Ulriken, where the view of the city framed by sea, fjord and mountain is one of the most **spectacular** in Norway.

Bergen hosts a **multitude** of international music and cultural events all year round of which Bergen International Festival in May is probably the best-known. The city is home to one of the world's oldest symphony orchestras, as well as theatres, dance companies and revues. Visit Edward Grieg's home to hear his music where he composed it. Museums, art collections, churches and fascinating architecture are all certain to capture your imagination.

<http://www.help.su/press/news3915.htm>

II. Learn the vocabulary

sample – испытывать

stained glass – цветное стекло

provide – предоставляет

thrive – процветать

browse – небрежно рассматривать

squirrel – белка

peacocks – павлин

serve – подавать на стол

ales – пиво, эль

derive – происходить

tomb – могила

present-day – нынешний

build over – застраивать

Noah – Ной

coloniser – колонизатор

invader – захватчик

swiftly – поспешно

promenade – место для прогулок

leather goods – кожаные изделия
pottery – керамические изделия
cater for – угождать
luxurious – роскошный
marble – коллекция мраморных скульптур
leaded glass – свинцовое стекло
pedestrian precincts – пешеходная зона
palatial – дворцовый
unequalled – непревзойденный
brewery – пивоваренный завод
ornate – богато украшенный
remnant – след
burial – похороны
available – доступно
stroll – прогуливаться
adorn – украшать
mall – аллея для гулянья
accessible – доступный
stunning – ошеломляющий
captivating – очаровательный
cling – цепляться
expanse – простор
wander – прогуливаться
alleyway – переулок
savour – наслаждаться
enchanted – прелестный
reward – награждать
tranquil – безмятежный
gem – драгоценный камень
whiff – дуновение
fjord – фиорд
quayside – пристань
quarter – квартал
cable car – канатная дорога
spectacular – эффектный, впечатляющий
multitude – масса

III. Match the words and their definitions.

- | | |
|-----------------|---|
| 1. browse | a. is able to be used or can easily be bought or found; |
| 2. priceless | b. very successful; |
| 3. undeniable | c. very suddenly, excitingly and noticeably; |
| 4. available | d. admired as one of the best and most important; |
| 5. fascinating | e. easy to get to; |
| 6. luxurious | f. definitely true or certain; |
| 7. sample | g. extremely interesting; |
| 8. unequalled | h. be busy; |
| 9. thriving | i. very impressive and exciting; |
| 10. bustle | j. very beautiful; |
| 11. metropolis | k. to spend time looking at things in a shop without buying anything and, without hurrying; |
| 12. scenic | l. surrounded by views of beautiful countryside; |
| 13. prestigious | m. to try something to see what it is like; |
| 14. spectacular | n. a slow relaxing walk. |
| 15. stroll | |

IV. Fill the gaps with the words from the text:

1. There are parks which you will share with (s)....., (p)..... and the friendly people of York and their (v)..... from all over the world.
2. Present-day Larnaca is built over the ruins of the ancient city-kingdom of Kitium which, (a)..... to legend, was founded by Kittim the grandson of Noah.
3. Dublin is a (c)..... city.
4. It's a pleasure just to (s)..... around Birmingham's city centre.
5. You can (s)..... the atmosphere of one of the world's great cities.
6. Bergen is cosmopolitan, and rich in (t)..... and history.
7. Stroll along the (q)..... and soak up the atmosphere of the old (m)..... quarter.

V. Give the Russian equivalents:

towering; stained glass; diplomatic capital; variety of goods; from every corner of the globe; overseas; dramatically clings; tranquil beauty; whiff of salty sea.

VI. Give the English equivalents:

любимый город; напоминания о прошлом; проистекать; выпитывать; горячая точка; артистическое наследие; незабываемый опыт; осмотр достопримечательностей.

VII. Speak about these cities and their sightseeings.

I. Read and translate the text.

DARWIN AND EVOLUTION

A hundreds years ago people believed that plants and animals had always been as they are now. They thought that all the different sorts of living things, including men and women, had been put here by some mysterious power, a few thousand years ago.

It was Charles Darwin, born at Shrewsbury on February 12, 1809, who was showed that this was just a legend. As a boy Darwin loved to walk about the countryside collecting insects, flowers and minerals. He enjoyed helping his elder brother at chemical experiments in a shed at the far end of their garden.

Because of this, his school friends called him "Gas". These hobbies interested him much more than Greek and Latin, which were his main lessons at school. His father, himself a doctor, sent Charles to Edinburgh University to study medicine. But Charles dislike this work. He spent a lot of time with a zoologist friend, watching birds and other animals, and collecting insects in the in the surrounding countryside.

Then his father sent him to Cambridge to be trained as a clergyman. Darwin didn't want to be a doctor or a clergyman. He wanted to be a biologist.

THE ORIGIN OF MEN

Since the days when men climbed down out o the trees, he has spread out all over the earth in hot countries and cold, in mountains, jungle swamps and fertile valleys.

Wherever men went they lived in ways that suited the climate and geography of the particular place where they settled. For a long time they continued to look pretty much alike. Then there developed differences – in their skin colour in the shape of their heads and in other minor physical

features. In Africa, the isolated group developed darker skins; in Asia, yellow skins and slanting eyes; in Europe – fair or “white” skins.

The feature most used to distinguish the mankind is the colour of their skin. All three races – black, white and yellow – are very much the same in other physical features. In each race there are some people who are tall and some who are short; some are long-headed, some round-headed. In each race there are some people who belong to blood group A, some to group B, some to AB and some to O. But all races are members of the same species. And wherever and whenever any group of any colour had the chance, they did their part in forwarding the march of human progress. History does not belong exclusively to any one race; it is shared by all. No race is more generous than any other race. You can make an important invention or write a great book or become a hero whatever the colour of your skin or the shape of your head may be.

*From “Climbing our Family Tree”
by A. Novikoff.*

II. Give the main points of all the texts of the lesson in writing.

III. Compose short dialogues for the following imaginary situations:

1. You are to write an article about Charles Darwin’s voyage around the world. Make up a plan of your article. Which points of his voyage are the most important and why?

2. An acquaintance of yours is going to make a voyage around the world. Advise him to follow Darwin’s route, what places to visit and what to take note of.

3. A group of schoolchildren have come to visit our faculty. They have seen our wall-newspaper “The Beagle” and go interested in its title means.

4. Your friend’s grandmother is religious. She believes man was created by God. Try to make her change her mind. (Don’t forget about “The Descent of man” by Ch. Darwin.)

5. Your friend doesn’t believe in evolution. With the help of a time-machine you have managed to take him to the primitive age (several million years back). You see only amphibians and primitive scorpions around. Trace the development of life on earth. Discuss it.

FOOD FACTORS

I. Read and translate the text.

In the Dutch East Indies in 1897 men on the plantations were falling sick with a strange nerve disease. They were unable to eat or hold their food. Their arms and legs became paralyzed and shrunken. So many were sick, that the hospitals had no more room for the victims of this disease, known as beriberi. The Dutch physician Dr. Christiaan Eijkman was sent from Holland to try to find out how to prevent and cure this disease. Eijkman was immersed in germ theory. He was sure that beriberi was a bacterial disease. He brought chickens with him and hoped to cultivate the germ in them. But in this he failed. However during the course of 1896 these chickens came down spontaneously with a disease very much like beriberi. Before Eijkman could do much about it, the disease vanished.

Searching for causes, he found out that a certain period of time the chicken had been fed on polished rice from the hospital stores and it was after that they sickened. Put back on commercial chicken food, they recovered.

Dr. Eijkman also learnt that the favorite food of the people was white-polished rice. This was prepared by rubbing off the brown outer coating of the rice grains. Dr. Eijkman decided to try an experiment. He fed a number of hens with polished rice until they became paralyzed. The hens were then divided into two groups. One group, the control, was kept on the usual polished diet. The other group was given not only polished rice, but the outer brown rice skins as well. In a short time, the control group which ate nothing but white rice died of beriberi. The test group that received the brown rice polishing was cured.

This was the first carefully controlled experiment showing that there was something in a food that could prevent a dangerous disease. Eijkman did not appreciate the true meaning of this at first. He thought there was a toxin of some sort in rice grains and that this was neutralized by something in the hulls. The hulls were removed when rice was polished, leaving the toxin in the polished rice unneutralized.

However, why assume the presence of two different unknown substances, a toxin and an antitoxin, when it was only necessary to assume one: some food factor required in traces? The outstanding exponents of this latter view were Hopkins and a Polish-born biochemist Casimir Funk. Each suggested that not only beriberi, but also such diseases as

scurvy, rickets were caused by the absence of trace of food factors.

Under the impression that these food factors belonged to the class of compounds known as “amines” Funk suggested these factors be named vitamins (life amines) and ever since the name was adopted.

*From “Biology and Human Progress”
by L. Eisman, Ch. Tanzer.*

II. Find English equivalents in the text.

1. В 1897 году люди на индийских плантациях заболевали странной болезнью.

2. Доктор Ейкман считал, что «бери-бери» – вирусное заболевание.

3. Исследуя причины, Ейкман обнаружил, что в определенный период времени цыплята потребляли полированный рис и после этого заболевали.

4. Полированный рис готовили путем очищения коричневой шелухи от рисовых зерен.

5. Первый контрольный эксперимент показал, что в продукте есть что-то, что предотвращает опасную болезнь.

6. Шелуху очищали, когда рис полировали, оставляя токсин в полированных зернах.

7. Ученые предположили, что не только «бери-бери», но также цинга и рахит являются результатом отсутствия витаминов в продуктах.

III. Answer the following questions.

1. What happened to people on the plantations in 1897?

2. How was a strange nerve disease called?

3. What did Dr. Eikman do to find out how to prevent and cure diseases?

4. How was white-polished rice prepared? What did an experiment show?

5. How did Hopkins and Funk name the food factors?

IV. Notes to the text:

to fall ill – заболеть

to catch cold – простудиться

to have no room – не иметь места

before he could do much – до того, как он что-либо сделал
prevention of accidents – техника безопасности
mean – середина
the golden mean – золотая середина
means – средство, способ
by means of this – посредством этого
by all means – во что бы то ни стало
by no means – никоим образом

V. Make a note of the main idea of this text. Tell a partner about it.

VOCABULARY

Aa

ability – способность
accumulations – накопления
acid – кислотный
accident – случай
activity – деятельность
advertising – рекламирование
advice – совет
affect – влиять
agricultural – сельскохозяйственный
air – воздух
alarm – тревога
allow – позволять
analysis – анализ
annual – ежегодный
antelope gnu – антилопа-гну
apology – вред
appear – появляться
appreciate – получать удовольствие
area – территория
arrange – устраивать
assume – превращаться
atmosphere – атмосфера
atomic – атомный
attack – внедряться
average – средний

Bb

bargain – выгодная покупка
bear – медведь
bison – бизон
blizzard – буран, сильный ветер
blow up – взрывать
blubber – медуза
bluebell – колокольчик
boiler – бойлер
breathtaking – потрясающий
buffalo – буйвол

Cc

cancer – рак
carbon – углерод
catch up – догонять
causing – быть причиной
chemical – химикат
chief – главный
chlorine – хлор
coastal – прибрежный
collect – собирать
common – распространенный
complex – сложный
conditioner – кондиционер

Dd

daily – ежедневно
dam – дамба
damage – наносить ущерб
decode – расшифровать
decrease – уменьшать
despite – несмотря на
destroy – разрушать
destructive – разрушительный
diabetes – диабет
disruption – разрушение
dolphin – дельфин

Ee

Earth – земля
effect – изменение
electrical plant – электростанция
emission – сброс, отходы
endanger – обезопасить
enormous – огромный
environment – окружающая среда
evergreen – вечнозеленый
excellent – отличный
exciting – волнующий
extent – большой
extinction – исчезновение
extremely – очень

Ff

fascinating – потрясающий
fat – жир, толстый
fauna – фауна
feed – кормить
festival – фестиваль
float – плавать
flock – поток
forecast – предсказывать
freeze – замораживать
fur – мех

Gg

garbage – мусор
gas – газ
general – общий
genome – геном
gentle – мягкий
gift – подарок
global – глобальный
golfing – гольф

Hh

habitat – население
harvest – урожай
hazard – опасность
heart disease – заболевание сердца
herald – возвещать
hole – дыра
hoof – копыто
horn – рог
hunt – охотиться
hydrogen – водород
hyena – гиена

Ii

ignore – игнорировать
increase – увеличивать
incurable – неизлечимый
industrial – промышленный
insect – насекомое
immune – иммунный

Ll

layer – слой
leopard – леопард
lion – лев
list – список
lung cancer – рак легких
lynx – рысь

Mm

mammals – млекопитающие
marine – морской
marten – куница
medical raw material – сырье для медицинских препаратов
mining – шахта
mist – туман
misunderstand – неправильно понять
mixture – смесь

molecule – молекула
mouflon – муфлон
multiply – размножаться

Nn

nitrogen oxide – оксид азота
numerous – бесчисленный

Oo

obesity – ожирение
obtain – добывать
ocean – океан
offer – предлагать
oil – нефть
oxygen – кислород
ozone – озон

Pp

packing – упаковка
penetrate – проникать
polar bear – белый медведь
polar fox – песец
protector – защитник
provide – обеспечивать

Rr

rare – редкий
rate – скорость
ray – луч
react – реагировать
refrigerator – холодильник
reindeer – олень
release – выделять
representatives – представители
research – исследование
resource – ресурс
risk – риск

Ss

sable – соболь
seal – тюлень
share – делить
silver fox – чернобуря лиса
simple – простой
skin – кожа
source – источник
southern – южный
species – вид
spoil – портить
stream – течение
stretches – территории
stuff ourselves – заполнять желудок
sulfur oxide – оксид серы
sums – суммы
support – поддерживать
surface – поверхность
survival – выживание

Tt

tuna – industry – промысловая рыба

Uu

ultraviolet – ультрафиолетовый

Vv

valued – ценный
vast – огромный
veil – покрывало

Ww

walrus – морж
weak – слабый
wealth – богатство
whale – кит
widespread – широко распространенный
wild goat – дикий козел
wolf – волк

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