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«БАРАНОВИЧСКИЙ ГОСУДАРСТВЕННЫЙ УНИВЕРСИТЕТ»

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ЭКОЛОГИЧЕСКИЕ ПРОБЛЕМЫ И ОКРУЖАЮЩАЯ СРЕДА

ECOLOGICAL PROBLEMS AND ENVIRONMENT

Сборник методических материалов

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Издание имеет модульный принцип построения, позволяющий использовать его как для аудиторной работы, так и для самостоятельного совершенствования языковой подготовки. Сборник состоит из 17 блоков, содержащих лексический минимум, комплекс упражнений для развития навыков и умений монологической и диалогической речи во взаимосвязи с чтением, аудированием, письмом по теме «Экологические проблемы и окружающая среда».

Предназначено для студентов факультета иностранных языков, изучающих английский язык как основную специальность.

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ВВЕДЕНИЕ

Предлагаемый сборник методических материалов предназначен для студентов III курса факультета иностранных языков по дисциплинам «Дискурсивная практика», «Дискурсивная практика: социокультурный контекст иноязычного общения», изучающих английский язык в качестве основной специальности.

Данное издание направлено на формирование лексического навыка по теме «Экологические проблемы и окружающая среда»; развитие умения подготовленной и неподготовленной устной (монологической/диалогической) и письменной речи; развитие и совершенствование навыков аудирования и чтения.

Сборник методических материалов имеет модульный принцип построения, позволяющий осуществлять поэтапное изучение учебного материала, овладение умениями, навыками, создавая возможность приспособить процесс обучения к индивидуальным особенностям студентов, уровню их подготовки.

Издание включает 17 разделов, материал каждого из которых представлен заданиями четырех уровней усвоения учебного материала. Задания I уровня выступают основой для формирования лексического навыка по теме «Экологические проблемы и окружающая среда»; задания II уровня направлены на формирование лексического навыка посредством использования лексических единиц в стандартных ситуациях, выполнения действий по образцу; задания III уровня направлены на развитие и совершенствование навыков аудирования и чтения, развитие аналитического мышления студентов при помощи решения задач в нестандартных ситуациях; задания IV уровня направлены на развитие умения подготовленной и неподготовленной устной и письменной речи посредством решения творческих задач. Работа с заданиями предложенных уровней предоставляет студентам возможность учиться отбирать, анализировать и творчески использовать изучаемый материал в устной и письменной речи.

Комбинация заданий по каждому из разделов представлена в следующей таблице:

Раздел сборника	Уровень усвоения учебного материала			
	I	II	III	IV
1	1	2, 3, 4	5, 7	6 или 8
2	1	2, 3, 4, 5	6, 8, 9	7
3	Повторение	1, 2, 3	4, 5, 7, 8	6
4	Повторение	1, 2, 3, 4	5, 7	6 или 8
5	Повторение	1, 2, 3, 4	5, 7	6 или 8
6	Повторение	1, 2	3, 4, 6	5 или 7
7	Повторение	1, 2, 3, 4	5, 6, 7	8 или 9
8	Повторение	1, 2	3, 4	5
9	Повторение	1, 2, 3, 4, 5	6	7
10	Повторение	1, 2, 3	4, 6	5 или 7
11	Повторение	1, 2, 3	4, 5	6
12	Повторение	1, 2, 3	4, 6	5 или 7 или 8
13	Повторение	1, 2, 3, 4	5, 6	7
14	Повторение	1, 2	3, 4	5 или 6
15	Повторение	1, 2	3, 6	4 или 5 или 7
16	Повторение	1, 2	3, 5	4 или 6
17	Обобщение	1	2, 3, 4	5 или 6

Структура данного сборника методических материалов обеспечивает комплексный подход в решении поставленных задач: формирование у студентов академической, социально-личностной, профессиональной компетенций.

По усмотрению преподавателя материалы сборника могут быть использованы как на аудиторных занятиях, так и для организации контролируемой самостоятельной работы студентов.

U N I T 1

THE EARTH

Task 1. **Study the words and word combinations below. Make sure you understand their meanings and know their correct pronunciation.**

Natural resources and attractions:
– minerals;
– (fresh) water-supplies (reservoirs);
– flood;
– rainfalls;
– vegetation;
– greenery;
– wood-land(s);
– forestry;
– wildlife;
– plant kingdom;
– animal kingdom (population);
– flora and fauna;
– arable land (soil);
– cultivated land;
– open land;
– “green” belts;
– recreation areas;
– coastal areas;
– country (national) parks;
– clear landscape;
– public open spaces.

Environment and man:
– to link man to nature;
– to adapt to environment;
– to be preoccupied with economic growth;
– unrestricted industrialization;
– the sprawl of large-built areas;
– industrial zoning;
– to upset the biological balance;
– to abuse nature;
– to dwindle natural resources;
– to disfigure (litter) the landscape;
– unpleasant/disastrous aftereffect;
– to cause long-term changes;
– ecology;
– ecosystem;
– to be environment-conscious;
– to be environment-educated.

Task 2. **Give English equivalents to the following words and word combinations.**

Запас пресной воды, зеленая зона, зона отдыха, прибрежная зона, нарушать биологическое равновесие, загрязнять природу, учитывающий необходимость охраны окружающей среды,

живая природа, пахотная земля, истощать природные ресурсы, выбрасывать мусор, приспосабливаться к окружающей среде.

Task 3. **Give synonyms to the following words and word combinations using your active vocabulary.**

Garbage, to protect ecosystems, greenery, contamination, exhaustion of resources, protection movement, animal kingdom, country park, to decrease pollution, natural world, died out species, poisonous fall-outs, harm to environment, to drop litter, renewable energy, surroundings, industrial wastes, energy-conserving.

Task 4. **Read the text below. Use the word given in capitals at the end of each line to form a word that fits the space in the same line.**

ABORIGINAL STORIES

Australian Aborigines are famous for their (1) _____ stories, which are read not from a text but from their (2) _____. These (3) _____ stories form the body of Aboriginal culture and (4) _____, which make up their unique world view.	EXCITE SURROUND TRADITION KNOW
The stories, which are often very (5) _____, are told by pointing out and walking along large tracks of land; it can be said, therefore, that the (6) _____ of Aborigines are lived out as if in a giant natural storybook. It is also (7) _____ that Aboriginal land has a strange way of creating its own (8) _____.	THEATRE LIVE BELIEF PERSONAL
When they talk about a place of (9) _____, Aborigines say that the land has a *gi* that either likes you or makes you feel disturbed and (10) _____. In fact, if you sit under a tree there is a (11) _____ that it is watching you, listening to you and that it may even talk to you.	IMPORTANT COMFORT POSSIBLE

& Task 5. **Read an article about our planet.**

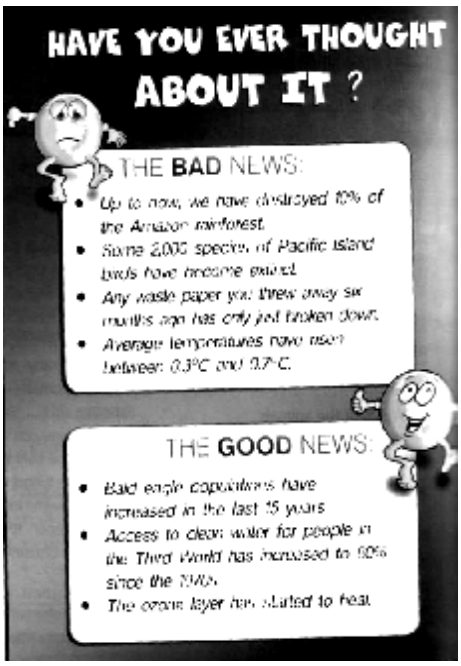
A. Match the word with its definition.

1) to evolve	a) incapable of being conceived, imagined
2) to multiply	b) to see or represent as the same or similar; to compare
3) to envelop	c) to search through every part of smth.; to examine thoroughly
4) inconceivable	d) to develop gradually.
5) ascendancy	e) to enclose in a covering
6) to ransack	f) to increase
7) to liken	g) the condition of being dominant

B. Read the text and say how old modern man is in comparison with the planet's age.

PLANET EARTH IS 4,600 MILLION YEARS OLD

If we condense this inconceivable time-span into an understandable concept, we can liken the Earth to a person of 46 years of age.



Nothing is known about the first 7 years of this person's life, and whilst only scattered information exists about the middle span, we know that only at the age of 42 did the Earth begin to flower.

Dinosaurs and the great reptiles did not appear until one year ago, when the planet was 45. Mammals arrived only 8 months ago; in the middle of last week manlike apes evolved into apelike men, and at the weekend the last ice age enveloped the Earth.

Modern man has been around for 4 hours. During the last hour man discovered agriculture. The industrial revolution began a minute ago.

During those sixty seconds of biological time, modern man has made a rubbish tip of Paradise.

He has multiplied his numbers to plague proportions, caused the extinction of 500 species of animals, ransacked the planet for fuels and now stands like a brutish infant, gloating over this meteoric rise to ascendancy, on the brink of a war to end all wars and of effectively destroying this oasis of life in the solar system.

C. Can you foresee further development of life on the Earth? Work in pairs and share your predictions.

D. Have a look at the list of bad and good news about our planet.

1. Has any piece of news surprised you? Can you add any good news to the given list?
2. What should be done to preserve our planet for future generations?
3. How can an individual contribute to keeping it safe for future generations?

E. You are the editor-in-chief of the magazine "Earth Focus". What issues would your magazine cover?

Task 6. **A lot is said about the necessity for protecting nature. At first you were ecologically-unconscious but once your had a dream that radically changed your mind. You became concerned about our planet and willing to stop its contamination. What was it? Share it with your groupmates.**

[2] Task 7. **You will hear part of the programme "Did you know?"**

A. Listen to the recording and fill in the correct piece of information about the Earth.

PLANET EARTH

Circumference: _____ km.
Diameter: _____ km.
Percentage of surface area covered by oceans: _____.
Highest point: _____ — _____ m.
Lowest point: _____ — _____ m below sea level.

B. What other facts do you know about the Earth? Share them with your groupmates.

Task 8. **Make up a quiz devoted to some interesting geographical and environmental facts about our planet. It should consist of 10 multiple-choice questions. Be creative.**

U N I T 2

THE ENVIRONMENT: PROBLEMS AND SOLUTIONS

Task 1. **Study the words and word combinations below. Make sure you understand their meanings and know their correct pronunciation.**

Environmental destruction and pollution:

– to pollute/to contaminate;
– to emit pollutants;
– land pollution;
– derelict land;
– industrial wastes/effluent;
– by-products of massive industrialization;
– to dump waste materials on land;
– to drop/chuck litter;
– extensive use of agrochemicals;
– to spray crops with pesticides;
– the denudation of soil;
– the toxic fall-outs of materials;
– acid rain;
– water pollution;
– a dropping water level;
– to face the fresh water supply problem;
– depletion of water resources;
– the disruption of water cycle;
– sewage discharge;
– marine pollution;
– oil spillage;
– oil slick;
– leakage of toxic waste;
– air (atmospheric) pollution;
– the air pollution index;
– to produce foul air;
– to exhaust toxic gases (fuel);
– exhaust fumes/emissions;
– to release pollutions into the atmosphere;
– fossil fuel;
– combustion of fuel;
– concentrations of smoke in the air;
– dust content in the air;
– to choke on the fumes;
– depletion of the ozone layer;
– radiation;
– high (low) radioactivity;
– radioactive contamination;
– to bury (disperse) radioactive waste;
– noise offenders (pollutants);
– merciless killing of animals;
– destruction of animal habitats;
– to be on the edge of extinction;
– landfill.

Nature conservation and environment protection:

– a global imperative for environment;
– global environmental security;
– to be eco-friendly;
– to preserve/protect ecosystems;
– to create disaster-prevention programmes;
– without detriment/harm to environment;
– to harmonize industry and community, plants and people;
– sustainable use of natural resources;
– conservation movement;
– the environmental pressure group Greenpeace;
– to preserve woodlands;
– to protect and reproduce animal (fish, bird) reserves/preserves;
– to fight pollution;
– to install antipollution equipment;
– to use renewable/alternative energy;
– to minimize noise disturbance;
– to reduce pollution;
– to dispose garbage (litter, wastes) in designated areas;
– litter bin/garbage can;
– biodegradable;
– to recycle packaging (newspaper);
– reclamation of scrap material;
– energy-efficient/energy-conserving.

Task 2. **Give English equivalents to the following words and word combinations.**

Среда обитания, вырабатывать загрязненный воздух, содержание пыли в воздухе, хранить радиоактивные отходы, загрязнение земли, промышленные сточные воды, разлив нефти, нарушение водооборота, горение топлива, на грани вымирания, без ущерба для окружающей среды, опрыскивать посевы пестицидами, движение защитников окружающей среды, заповедник, отходы, энергосберегающий, истощение озонового слоя.

Task 3. **Use your active vocabulary to give antonyms to these words and word combinations.**

To bury radioactive wastes, to destroy ecosystem, derelict land, plant kingdom, high radioactivity, to destroy animal reserves, to clean up environment, to increase, to collect garbage, to cut down woods, fossil fuel.

Task 4. **Which word in each line is the odd one? Why?**

car	bicycle	plane	space rocket
to pollute	to harm	to litter	to recycle
ultraviolet light	the greenhouse effect	acid rain	smog
rain	flooding	melting	air pollution
burying rubbish	planting trees	ecological situation	recycling

Task 5. **Fill in the correct word derived from the word in brackets.**

THE ENVIRONMENT: OUR RESPONSIBILITY

These days it is _____ *(possible)* to open a newspaper without reading about the damage we are doing to the environment. The earth is being _____ *(threat)* and the future looks _____ *(horror).* What can each of us do?

We cannot clean up our _____ *(pollute)* rivers and seas overnight. Nor can we stop the _____ *(appear)* of plants and animals. But we can stop adding to the problem while _____ *(science)* search for answers and laws are passed in nature's _____ *(defend).* It may not be so easy to change your lifestyle and habits _____ *(complete)* but some steps are easy to take: cut down the amount of _____ *(drive)* you do or use as little plastic as possible.

It is also easy to save energy, which also reduces _____ *(house)* bills. We must all make a personal _____ *(decide)* to work for the future of our planet if we want to _____ *(sure)* a better world for our grandchildren.

& Task 6. **Read an article about environmental problems and some possible solutions to them.**

A. Match these English words and word combinations with the corresponding Russian equivalents.

1) arid	a) выхлопные газы
2) to cut down trees	b) пробка, затор уличного движения
3) to run up	c) вырубать деревья
4) recycling	d) солнечная энергия
5) species extinction	e) увеличиваться
6) solar power	f) вымирание видов
7) environmentally friendly	g) переработка отходов
8) to ensue	h) благоприятный для окружающей среды
9) congestion	j) получаться в результате чего-либо
10) exhaust fumes	k) сухой, безводный

B. Read the article and say why the environmental situation in the world is so serious today.

THE ENVIRONMENT: PROBLEMS AND SOLUTIONS

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. 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.

Problems

Pollution is damage to the air, sea, rivers or land caused by chemicals, waste and harmful gases. The biggest polluter today is the car. **Exhaust fumes** are the main cause of bad air quality, which can make people feel ill and have difficulty breathing. This problem is especially bad in big cities where, on days when there is not much wind, a brown layer of smog hangs in the air. The number of cars is increasing every year and this fact causes serious congestion. Governments build

new roads trying to improve the situation, but this means that they cut down trees and destroy more of the countryside.

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. The gases go up into the Earth's atmosphere and stop heat from leaving the Earth. As the heat cannot escape, the temperature on the Earth is running up. **Global warming** may result in the melting of the ice at the Poles and rising of sea levels, leading to serious flooding and other disasters in many parts of the world. In other places the temperature will rise and there will be less rain, turning more of the land into desert.

Holes in the ozone layer. The ozone layer is a layer of gases that protects us from ultraviolet light coming from the sun, which can have a harmful effect on animals and humans. There may be a sharp rise in skin cancers as the protective ozone layer in the upper atmosphere is depleted by man-made chemicals.

Acid rain is a rain harmful to the environment because it contains acid from factory smoke. Acid rains cause damage to trees, rivers and buildings.

Species extinction is a natural feature of the evolution of life on earth; the best-known example is the disappearance of the dinosaurs. In the last 400 years, however, human activities have been responsible for the loss of most of the animals and plants that have disappeared.

Deforestation is the term used to describe the disappearance of forests from large parts of the world's surface. Deforestation has been occurring steadily since the 20th century.

Solutions

Alternative forms of transport. One of the main problems with cars is that they cause a lot of pollution and often carry only one person. Public transport is more environmentally friendly because buses and trains can carry large numbers of people at the same time. Even cleaner solutions are electric cars and bicycles.

Alternative energy sources such as wind, wave and solar power do not pollute the environment. They are much cleaner than oil and coal, but it's more difficult to get them regularly.

Recycling is another solution: instead of throwing away glass, paper can be taken to special "banks" and recycled there.

Protesting. Many people try to protect the environment by joining environmental groups that inform people about ecological problems and try to persuade governments to take more care of the environment, especially by organizing protests.

C. Answer the following questions.

1. Why is the car the biggest polluter?
2. What other polluters can you name?
3. Why can the greenhouse effect be dangerous?
4. What do you know about holes in the ozone layer?
5. Why is acid rain hazardous?
6. When did the problem of deforestation appear? Why?
7. What are the alternative forms of transport? Can they really solve the problem of air pollution?
8. What are the alternative energy sources?
9. Do you think the protests organized by the "greens" are really effective? Why (not)?

D. What environmental problems do these refer to?

1. Some experts predict that by 2090 the average temperature can be higher than today.
2. For some years scientists checked and rechecked their findings. By October 1984 the “hole” over Halley Bay showed a 30 per cent reduction in ozone.
3. The alarm was sounded in 1970 by the Scandinavian countries where acid rain has destroyed all life in many of their lakes.
4. Gone forever, for example, are seventeen species of bears, five of wolves and foxes, four of cats, five of horses and zebras and three of deer.
5. Around the world between 11 and 15 million hectares of tropical forest are lost every year, an area larger than Austria.
6. 25% of the world’s electricity comes from dams and rivers.
7. At the moment most countries only turn between 5% and 10% of their rubbish into energy.

E. What are the causes of these environmental problems? Complete the chart with the information from the text and the phrases given below. Think over the problems and add more causes if it is possible.

1. Poor air quality.
2. Emissions from factories.
3. Over fishing.
4. Destruction of natural habitats.
5. Illegal logging.
6. Acid rain.
7. Growth in the size and number of major cities.
8. Heavy traffic in cities.
9. Untreated waste.
10. Unsafe manufacturing processes.
11. Tourism in natural reserves.
12. Major accidents at sea.
13. Using wilderness areas for farming.

Problem	Causes
Increase in cancers and allergies	
Food chains destroyed	
Extinction of species	
Destruction of rain forests	

Task 7. **Act out a panel discussion “The Environment: Problems and Solutions”**.

The host invited:

1) a scientist who studies causes of environmental problems;
2) a scientist who studies consequences of environmental problems;
3) a scientist who studies different ways of solving environmental problems;
4) a doctor who studies the influence of the polluted environment on human health;
5) 2-3 “green” activists;
6) a teacher who is eager to be involved in the process of nature protection;
7) 2-3 students who think that nature protection is vital nowadays;
8) an environmentalist who studies the ecological changes;
9) a weather forecaster who studies the changes of the climate;
10) a celebrity who is extremely interested in nature protection, etc.

Prepare your speeches and questions to other specialists. The following problems may be discussed:

1. What in your opinion are the most serious environmental problems nowadays?
2. Can you give examples of the effects of human disastrous activity?
3. Do you agree that man needs protection and care as much as animals do? What, in your opinion, must Modern Man do to survive?

Task 8. **Answer the following questionnaire.**

A. Are you ecologically conscious or indifferent to the environment? Actually, how green are you? Answer the questionnaire to find it out.

ARE YOU PART OF THE PROBLEM?

1. When you leave a room, do you:
   a) turn off all the lights?
   b) leave on light on?
   c) never bother to turn off the lights?

2. Do you:
   a) take short showers (less than 10 minutes)?
   b) have baths?
   c) take long showers (more than 10 minutes)?

3. Do you:
   a) walk or ride a bike for short journeys?
   b) take public transport when you can?
   c) travel everywhere by car?

4. Do you:
   a) separate all your rubbish and recycle what you can?
   b) recycle some of your rubbish?
   c) never recycle anything?

5. Do you:
   a) only use heating and air conditioning when you really need them?
   b) use heating and air conditioning now and again?
   c) have the heating on all winter and the air conditioning on all summer?

6. When you are outside, do you:
   a) always put your litter in a rubbish bin?
   b) usually try and find a bin for your litter?
   c) throw your litter away on the ground wherever you are?

B. What your answers mean.

Mostly a's: Well done! It sounds like you are doing all you can to help our planet. Keep up the good work.

Mostly b's: It seems like you know about the problems that are facing our environment and try to do what you can. There are still some more things that you could do though.

Mostly c's: There is a lot more you could do to help the environment. Why don't you read through the a and b answers and see if you could do any of the things mentioned here? Every little bit can help make our world a better place for everyone.

[2] Task 9. **Listen to the song "Save our planet".**

A. Look at the title of the song. What problems do you expect to hear? Listen and check.

B. Explain the meaning of the following phenomena.

Air poisoning, wildlife disappearance, a clean-up campaign, global warming, acid rain, to burn fossil fuel, waste recycling.

C. Match the words on the left with their synonyms on the right.

1) pollution	a) to cure
2) litter	b) waste
3) to disappear	c) to vanish
4) to clean up	d) to purify
5) to heal	e) contamination
6) to leave	f) to give up
7) to poison	g) to pollute

D. Match the words on the left with their antonyms on the right.

1) to die	a) to purify
2) to poison	b) neglect
3) to disappear	c) to survive
4) to kill	d) to initiate
5) care	e) to protect
6) to stop	f) cleaning
7) pollution	g) to reveal

E. Listen to the song and fill in the gaps, then sing.

There's so much _____
Poisoning the _____
There is so much _____
We can see it everywhere
_____ is disappearing
While everyone stands by
The _____ we love is dying
And we're the _____ why
Why are we killing our world
Why aren't we doing our share
We can save our _____
We can help it _____
All it needs is a little _____
If we all work together
Something can be done
We need a _____ campaign
Which involves everyone
We can slow down global _____
We can stop the _____ _____
We can heal our _____
We can help it live again

Why are we killing our world
Why aren't we doing our share
We can save our _____
We can help it _____
All it needs is a little _____
If we don't act quickly
Our world will soon be _____
We must leave our _____ at home
And use _____ instead
We must stop using chemicals
And _____ fossil fuels
We must _____ all our _____
It's so easy to do
We must stop killing our world
We must start doing our share
We can save our _____
We can help it _____
All it needs is a little _____

F. Discuss the following:

1. Is the motto "Save our planet" a necessity or just a fad? Prove your point of view.
2. Should or must we save our planet?
3. What should we urgently save on our planet? Why (not)?
4. Do costs matter in saving our planet? Why (not)?
5. How can you contribute to saving our planet?

U N I T 3
ENVIRONMENTAL PROTECTION — NATIONWIDE CONCERN

Task 1. **Give a word according to its definition. If necessary, look back at task 1 (unit 1 and unit 2).**

1. Harmful or poisonous substances introduced into an environment.
2. Wild animals and plants collectively.
3. Deserted land.
4. Plant life as a whole, especially the plant life of a particular region.
5. A system involving the interactions between a community of living organisms in a particular area and its nonliving environment.
6. To keep woods safe from danger or harm.
7. All the plant life of a given place or time.
8. A zone of farmland, parks, and open country surrounding a town or city.
9. The process of burning of fuel.
10. Land that is mostly covered with woods or dense growths of trees and shrubs.
11. The environment in which an animal or plant normally lives or grows.
12. A division of biology concerned with the relationship between living things and their environment.
13. A form of energy derived from a natural source, such as the sun, wind, tides, or waves.
14. A site where waste material has been buried.
15. The condition of being used up.

Task 2. **Match each word from group 1 with a word from group 2 to form meaningful collocations. To check the answers, consult the text "Environmental protection — nationwide concern".**

Group 1	Group 2
sewage	materials
waste	offender
oil	method
noise	sludge
treatment	measures
control	spillage

Task 3. **Form derivatives of the words in the table.**

Adjective	Noun	Verb
	waste	
		dispose
		deposit
discharging		
		disperse
spilling		
	reclamation	
		conserve
	pollution	

& Task 4. **Read the following text about environmental problems in Britain.**

A. Match the words and word combinations with their explanations.

1) "bottlebank"	a) under the patronage / protection
2) fall-out	b) strict power to direct or determine
3) smog	c) the dangerous radioactive dust which slowly falls to earth
4) under the auspices	d) dirty air that looks like a mixture of smoke and fog
5) stringent control	e) a large container into which the public may throw glass bottles for recycling

B. Read the text to find out how major environmental problems are tackled in Britain.

ENVIRONMENTAL PROTECTION — NATIONWIDE CONCERN

As a highly industrialized state Britain cannot ignore the problem of environmental protection. The practical results of the state policy in environmental protection include the development of technology to control atmospheric (air) and water pollution, agricultural pollution control, the study of man's influence on the climate, the forecasting of earthquakes and tsunamis, the biological and genetic consequences of pollution, protection of rare and vanishing plants and animals as well as a whole lot more.

The Control of Pollution Act 1974, which applies to England, Scotland and Wales, sets out a wide range of powers and duties for local and water authorities, including control over wastes, air and water pollution and noise, and contains important provisions on the release of information to the public on environmental conditions.

The main risks of land pollution lie in the indiscriminate dumping of materials on land, careless disposal of pesticides and chemicals, fall-out of materials from the atmosphere and the deposition of materials from flood-water. The use of sewage sludge on farms, too, involves risks as well as benefits to the land.

The Government encourages the reclamation and recycling of waste materials wherever this is practicable and economic in order to reduce imports and to help to conserve natural resources. Industry already makes considerable use of reclaimed waste materials such as metals, paper and textiles. In an increasing number of areas there are "bottlebanks" where the public can deposit used glass containers.

There has been a steady and significant improvement in water quality: the level of pollution in the tidal Thames has been reduced to a quarter of the 1950s level and 100 different kinds of fish have been identified there since 1964. Discharges of polluting matter into rivers, lakes, estuaries and some coastal waters are already controlled by law.

Control of marine pollution from ships is based largely, on international conventions drawn up under the auspices of the International Maritime Organization, a United Nations agency with headquarters in London. In dealing with spillages of oil or chemicals at sea the main treatment method is to spray dispersant from aircraft or surface vessels, and emergency cargo transfer equipment is available to remove oil from a damaged tanker.

Considerable progress has been made towards the achievement of cleaner air and a better environment, especially in the last 20 years or so. Total emissions and average concentration of smoke in the air have fallen by 80 per cent since 1960. London no longer has the dense smoke-laden "smogs" of the 1950s and in central London winter sunshine has been increasing since the 1940s when average hours a day were about 40 per cent less than at Kew in outer London; the levels are now virtually the same.

Transport is one of the main offenders in noise pollution, and control measures are aimed at reducing noise at source, through requirements limiting the noise that aircraft and motor vehicles may make, and by protecting people from its effects.

In Britain radiation resulting from industrial and other processes represents only a small fraction of that to which the population is exposed from the natural environment. Nevertheless, that fraction is subject to stringent control because of possible effects on health or longer-term genetic effects.

Various methods are used to bury radioactive waste, depending primarily upon its physical form and radioactivity. Waste of sufficiently low radioactivity is dispersed safely direct to the environment. For that of higher radioactivity a comprehensive, international research programme is being carried out with government assistance and with the participation of the nuclear industry into methods of treatment, storage, transport and disposal.

C. Answer the following questions.

1. What are the major environmental problems confronting Britain today?
2. What powers and duties for control authorities are set out by the Control of Pollution Act 1974?
3. What measures are taken to fight land pollution?
4. What are the main treatment methods applied to reduce water pollution?
5. What facts prove that certain progress has been made towards cleaner air?
6. What operational measures have been introduced to reduce noise disturbance?
7. What operational measures have been introduced to bury radioactive waste?
8. Why do you think people should be concerned about protecting the environment and saving the natural resources?

D. Match the words in the first column with those in the second to form word combinations used in the text.

1) vanishing	a) dispersant
2) remove	b) materials on land
3) forecast	c) plants and animals
4) dump	d) used glass containers
5) spray	e) oil
6) deposit	f) natural resources
7) store	g) earthquakes and tsunamis
8) conserve	h) radioactive wastes

E. Insert particles and prepositions where necessary.

1. The control of Pollution Act sets _____ a wide range of powers and duties for local and water authorities.
2. The main risk of land pollution lies in the indiscriminate dumping of materials _____ land.
3. The level of pollution in the tidal Thames has been reduced _____ quarter of the 1950s level.
4. Control of marine pollution from ships is based _____ international conventions drawn _____ the auspices of the International Maritime Organization.
5. In Britain radiation is subject _____ stringent control because of possible effects on health.

F. Discuss the following:

1. In your opinion, do Great Britain and Belarus face similar environmental problems? Why (not)?
2. Make up a list of the most urgent environmental problems facing Great Britain and Belarus. Write them down in the corresponding boxes.

Great Britain	Belarus

3. Which of the environmental problems mentioned above do you consider the most crucial or vital for both countries? Share your views with your groupmates.

Task 5. **Are you an environmentally-minded person? Mark each ecological topic out of 5 depending on how strongly you feel about it (5 — very strongly, 3 — moderately strongly, 1 — not bothered at all).**

1. Water pollution (dirty lakes, rivers, seas).
2. Air pollution (caused by factories, plants, vehicles on the road).
3. Land pollution (sewage, chemical fertilizers, litter, garbage disposal).
4. Atmospheric fall-outs (radioactive, acid rain).
5. Noise pollution (aircraft, traffic, blasters).
6. Contaminated food (from excessive use of pesticides).
7. Visual contamination (ugly architecture, posters).
8. Mental contamination (TV, radio ads, soap operas).
9. Global warming (greenhouse effect).
10. Deforestation (cutting down woods).
11. Holes in the ozone layer (caused by man-made chemicals).

Now add up your total score out of 50.

A score of 45—50 suggests you worry too much.
3—40 suggests you won't die of worry, but you're certainly not indifferent.
15—30 suggests either that you don't read the papers or don't believe a word they say.
0—15 suggests you live on some idyllic island.

When you finish, compare your notes with a groupmate.

Task 6. **Role-play.**
Imagine that you are a reporter from the First National Channel. Prepare a report about the major environmental problem confronting Belarus today and measures that are taken or should be taken to tackle it.

Task 7. **Read some pieces of advice on how you can help save the environment.**

A. Which of these pieces of advice do you follow? What else do you do to help save the environment?

The top tips:

1. Fly less. Use buses or trains instead where possible.
2. Drive as little as possible. Use bikes, or public transport.
3. Use only energy-saving light bulbs.
4. Plant trees. Two or three dozen trees can absorb a whole household's emissions of CO_2.
5. Don't keep your TV or other electrical appliances on standby. Switch them off completely.
6. Try to buy organic food, if possible which has been grown locally. Take your own shopping bags when you go to supermarkets.
7. Turn your heating down and wear a sweater if you're cold. If you use air conditioning, don't have it at less than 25°C.
8. Have showers not baths.

9. Support an environmental organization, for example *Friends of the Earth* or *Greenpeace*.
10. Regularly recycle paper, glass, plastic, and household waste.

B. What would you do to make the world greener?

1. Name something you could *give up.*
2. Name something you could *cut down on.*
3. Name something you shouldn't *throw away.*

C. Do you think you need to change your lifestyles and spending? Work with a groupmate. Make up a list of six changes you could/would introduce into your daily life to help protect the environment.

[2] Task 8. **You will hear a person presenting the schedule of the programme "Green Week".**

A. What is this programme about? Have you ever heard of or taken part in the campaigns of such kind?

B. Listen to the recording and fill in the chart with the relevant information.

Day of the Week	Activity	Aim

C. What other activities for the programme of "Green Week" can you suggest? What can be done at the weekend?

U N I T 4
MAJOR ENVIRONMENTAL THREATS: MISMATCH OF PERCEPTIONS

Task 1. **Divide the words and expressions into two groups in accordance with the titles in the table below.**

Greenhouse effect, car, power station, national park, smog, Greenpeace, acid rain, urban development, recycling, species extinction, global warming, lead-free petrol, exhaust fumes, ozone layer, cutting down trees, toxic waste, rubbish, dustbins.

"Protectors of the environment"	"Threats to the environment"

Task 2. **Match the words with their explanatory phrases.**

1) recycling
2) reclamation
3) deforestation
4) environmentalist
5) conservationist
6) reforestation
7) fossil fuel
8) fertilizer

a) a person who works towards protecting the environment from destruction or pollution
b) a natural product to make the soil more productive for agriculture
c) a programme for planting trees to replace those which have been destroyed
d) material that is used for producing heat by burning
e) the collection of raw materials so that they can be used again
f) someone who wants to keep things exactly as they are
g) the destruction of forests resulting from excessive cleaning
h) to obtain useful material from a waste product

Task 3. **Do the following task.**

A. Complete the chart by forming derivatives of the given words.

Verb	Noun	Adjective
		polluted
evacuate		
		leaky
	management	
	danger	
		confirmed
		productive
destroy		
		wasteful
		preventative
contaminate		

B. Fill in the gaps with the suitable words from the chart above.

1. The rainforests are being _____ at a frightening rate.
2. Nowadays the humanity is confronted with _____ use of resources.
3. Drinking water supplies are believed to have been _____.
4. During the hurricane the rescuers _____ several families from their homes.
5. Scientists evaluate the effects of industrial _____ on the population.
6. The virus is probably not _____ to humans.
7. A tanker is _____ oil off the coast of Scotland.
8. You know what they say, _____ is better than cure.

Task 4. **Join the words to make meaningful word combinations. To check the answers, consult the text "Major environmental threats: mismatch of perceptions".**

1) to arouse	a) to affect life
2) to place	b) of the ozone shield
3) concern	c) effects
4) short-lived	d) of species
5) the potential	e) high emotions
6) depletion	f) in the top ranks
7) disappearance	g) problems
8) irreversible	h) air pollution
9) worldwide	j) about the environment
10) outdoor	k) loss

& Task 5. **Read the following text about the difference in public and scientific perception of environmental problems.**

A. Match the words on the left with their synonyms on the right.

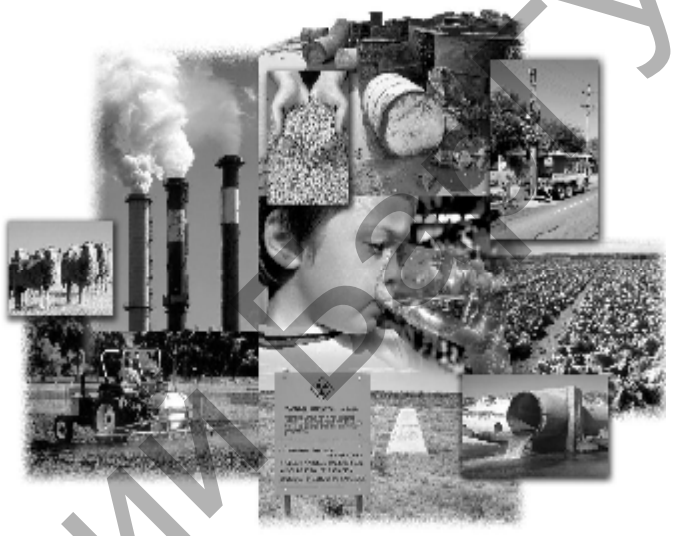
a) perception	1) disagreement
b) hazardous	2) to impel, to motivate

c) to rank
d) irreversible
e) diversity
f) to prod
g) mismatch

3) appreciation
4) variety
5) unalterable
6) to rate
7) dangerous

B. Read the text to find out the problems which are not similarly rated by the public and scientists.

MAJOR ENVIRONMENTAL THREATS: MISMATCH OF PERCEPTIONS



There seems little doubt of a mismatch between public perceptions of environmental risk and those of the scientists. Oil spills, hazardous waste, underground storage tanks and releases of radioactive materials, for instance, have aroused high emotions, generated reams of reports and prodded government to spend billions of dollars. Opinion surveys place them in the front ranks of public concern about the environment.

But in terms of the actual magnitude of risk they pose, scientists advising the E.P.A. (Environmental Protection Agency) rate them near the bottom of a broad array of environmental threats. This, the scientists say, is because their effects are relatively limited or short-lived or both.

At the same time, global warming and the destruction and alteration of natural habitats rank relatively low in public perception, polls show. But the scientists place them among the top risks because their potential consequences appear to be so damaging in the long run and their effects so widespread and difficult to reverse. They have the potential to affect life everywhere and for many years to come.

Three categories of risk for threats that humans pose to the environment were established. Relatively high-risk problems of this nature included the global warming that many scientists predict will result from an increase in heat-trapping atmospheric gases produced by human activity; depletion of the ozone shield that protects Earth from the Sun's harmful ultraviolet radiation, and destruction and alteration of natural habitats and the extinction of species, with an accompanying loss of biological diversity.

A middle rank included herbicides and pesticides, pollution of surface waters, acid precipitation and airborne toxic substances. Relatively low risk was assigned to oil spills, escape of radioactive materials, acid runoff to surface waters and pollution of groundwater.

Risks in this area of ecological threats were assigned largely on the basis of how many people a problem affects, how wide a geographical area is involved, and how serious and long-lasting the harm might be. On that basis, oil spills, for example, ranked low because their effects on coastal areas are relatively short-term and local.

By contrast, the loss of natural habitats and the disappearance of species are top risks because they affect the economic welfare of future generations worldwide and because the loss is "virtually irreversible." Similarly, ozone depletion and global warming were placed in the top rank because they are worldwide problems and because their effects are potentially catastrophic and reversible only over decades.

Additionally, scientists identified four environmental threats to health that are in the front rank: outdoor air pollution, exposure of workers to chemicals, indoor air pollution and pollutants in drinking water.

C. Answer the following questions according to the text.

1. What environmental problems are regarded by the public as extremely dangerous?
2. Do scientists support this point of view?
3. What are the three categories of risk for threats that humans pose to the environment?
4. What are the high-risk problems according to scientific perception?
5. What are the middle-risk problems? The low-risk problems?
6. What factors were taken into consideration while establishing the categories of environmental threats?
7. Why were ozone depletion and global warming placed in the top rank?
8. What are the four environmental threats to health?

D. Explain the meaning of the following environmental phenomena.

1. Oil spills.
2. Underground storage of radioactive materials.
3. Destruction of natural habitats.
4. Heat-trapping atmospheric gases.
5. Loss of biological diversity.
6. Acid precipitation.
7. Airborne toxic substances.
8. Exposure of workers to chemicals.

E. Rank the following in the order of importance in terms of danger to the average citizen and explain your answer.

1. Pesticide residue on foods eaten by humans.
2. Hazardous waste sites (in use).
3. The greenhouse warming effect.
4. Radiation from nuclear power plant accidents.
5. Hazardous waste sites (abandoned).
6. Radiation from X-rays.
7. Industrial accidents releasing pollutants into the air, water, or soil.
8. Exposure to toxic chemicals in the workplace.
9. Destruction of the protective ozone layer.
10. Non-hazardous waste, like trash disposal.
11. Underground storage tanks leaking gasoline and other substances.
12. Pesticides harming farmers, farm workers, and consumers who work with them.

Task 6. **We often hear the words "harmful effects of civilization on nature". What do they mean? Illustrate the results of harmful and helpful influences of human contacts with nature.**

[2] Task 7. **Listen to a conversation between two people about climate change and their attitude to the problem.**

A. Match the words on the left with their synonyms on the right.

1) fantastic	a) to conserve
2) worrying	b) to tilt
3) rubbish	c) hand-me-down
4) to agree	d) to decline
5) to limit	e) litter

6) to reduce
7) to put up
8) low-cost
9) to save
10) to face

f) to go up
g) annoying
h) to restrain
j) to accede
k) superb

B. Before listening to the recording, try to predict its content and tick the correct option.

1. Paul and Judith are both very worried about climate change.
2. Paul is very worried but Judith takes it less seriously.
3. Judith is very worried but Paul doesn't take it seriously at all.
4. Neither Paul nor Judith is worried about climate change.

C. Listen to the recording, check your predictions and decide who expresses the following opinions: Paul (P) or Judith (J).

Who...
1. _____ feels very positive about the unusual weather?
2. _____ mentions the government's action to reduce the number of flights?
3. _____ thinks that the government is taking the wrong action to reduce CO_2 emissions?
4. _____ thinks that individuals can help reduce global warming?
5. _____ says that everyone should try to save water and energy?
6. _____ thinks that effects of global warming can cause people's deaths in the future?
7. _____ suggests that they could change their usual holiday habits?
8. _____ admits that their attitude may be wrong?

D. Discuss the following:

1. What environmental problems are raised in the recording? Are they really vital?
2. Do you support the speakers' ideas that everyone should be trying to be a bit more aware of the problems we are facing nowadays? Are you personally aware of the problems we are facing nowadays?
3. Is the government of our country involved in solving environmental problems? Prove your answer.

Task 8. **Role-play.**

You are a scientist who has spent years identifying environmental threats to human health. You compiled a brochure "If you want to celebrate your 100 anniversary DO NOT do the following…" What is this brochure about? What rules does it contain? Share them with your groupmates.

U N I T 5
GLOBAL WARMING

Task 1. **Read the text below and do the given exercises.**

A. While reading, open the brackets and use the verb in the required tense-form.

B. Fill in the blanks with correct words from the list.

Words for inquiries: weather, exhaust, greenhouse effect, recycling, fuel, resources, environmental, atmosphere, energy.

In recent years, the number of (1) _____ problems *(to increase)* dangerously. One of the most serious problems is changes to the (2) _____ which *(to lead)* to the (3) "_____";

this *(to make)* most climates warmer. It already *(to affect)* several areas of the world with unusual (4) _____ causing droughts or heavy storms. Cutting down on (5) _____ fumes from vehicles *(to help)* solve the problem. Natural (6) _____ such as oil and coal are not endless, so using the other forms of (7) _____ such as wind, sun, wave and even sea waves *(to help)* preserve our planet. Very soon we *(to be able)* to drive cars in cities that run on electricity — a much cleaner (8) _____ than petrol. And we can also help preserve finite resources by (9) _____ things made of glass, aluminium, plastic and paper.

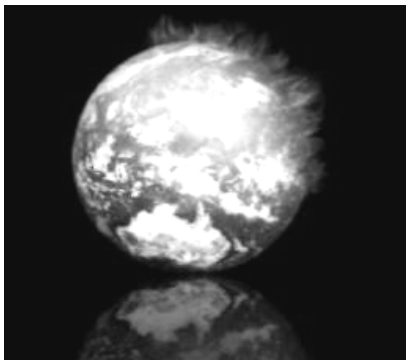
Task 2. **Complete the collocations below by adding an appropriate noun. Some words can combine with more than one noun.**

1) ACID _____;
2) global _____;
3) nuclear _____;
4) natural _____;
5) sea _____;
6) finite _____;
7) clean _____;
8) noisy _____;
9) exhaust _____;
10) ozone _____;
11) public _____;
12) air _____;
13) solar _____;
14) greenhouse _____;
15) recycled _____;
16) renewable _____.

Words for inquiries: warming, layer, effect, changes, energy, disasters, fumes, pollution, fuels, resources, waste, transport, rain, gases.

Task 3. **Choose the best ending for each sentence by filling in the blanks in the sentences below.**

1. In cities the air is hard to breathe because of car _____.
2. The earth's climate is changing because of _____.
3. Not having enough of something is called a _____.
4. Air, sea and land can suffer from _____.
5. Throwing things away unnecessarily is called _____.
6. A mixture of smoke and fog is called _____.
7. Things which we throw away are called _____.
8. To avoid wasting things we can use _____.



Words for inquiries: waste, recycling, pollution, global warming, exhaust fumes, shortage, smog, rubbish.

Task 4. **Do the following task.**

A. Match the words in Column A with the words in Column B.

Column A	**Column B**
dust	schemes
bottle	away
replanting	waste
recycle	men / women
environmentally	friendly
throw	tip
nuclear	bank
rubbish	rubbish

B. Use the word combinations from A to fill in the gaps in the sentences below.

1. Sometimes the _____ forget to collect the rubbish bags from our street and take them to the local _____.
2. I think we should _____ because it's good to re-use things.
3. The aerosol sprays I use are _____. They don't contain any CFC's so they don't damage the ozone layer.
4. I think furniture companies should all have _____. I'm sure a lot of them destroy the forests without thinking about replacing the trees.
5. I don't _____ glass bottles. I take them to the _____ for recycling.
6. I think disposing of _____ is very difficult because it is often radioactive for several years.

& Task 5. **Read the following text about global warming.**

A. Match these English word combinations with the corresponding Russian equivalents.

1) to plunge down to freezing	a) нарушать равновесие
2) to cut back on the production of CFC's	b) неуловимые изменения
3) to halt deforestation	c) попасть на страницы газет
4) subtle changes	d) погружаться в холод
5) devastating consequences	e) использование ископаемого топлива
6) usage of fossil fuels	f) разрушительные последствия
7) to upset the balance	g) принимать решительные меры
8) to hit the headlines	h) прекратить вырубку леса
9) to take drastic action	j) сократить образование фреона
10) to upset the balance	k) источники бедствий

B. Read the text to find out the connection between global warming and the greenhouse effect.

GLOBAL WARMING

The terms "global warming" and "greenhouse effect" only hit the headlines in the 1980s. Environmental scientists working in Hawaii found that carbon dioxide in the atmosphere had increased by 8% between 1959 and 1983. They attributed these figures to man's accelerating usage of fossil fuels. Scientists determined that harmful gasses from cars, industry, and farming were actually the root of our planet's woes.

Both global warming and the greenhouse effect are essential to life on Earth. As the sun warms the earth, certain gasses in the atmosphere act like the glass of a greenhouse — trapping heat and keeping the planet warm enough to support life. Without them we'd be plunged down to a freezing –18°C. The problem only occurs when subtle changes upset the balance.

Our planet has been gradually heating up since the last Ice Age ended 10,000 years ago. Temperatures have steadily increased at around a quarter of a degree for every 1,000 years. Until recently. During the last 100 years temperatures have increased by twice that amount. As if that wasn't alarming enough, all the warmest days occurred during the last decade. Experts are now predicting that temperatures are set to increase by as much as 6°C during the coming century — a rise that could herald devastating consequences.

To reverse the effects of global warming most scientists and governments agree that we need to take drastic action. We must reduce the world's carbon emissions, cut back on the production of CFCs, and other ozone-destroying chemicals, and halt deforestation. Moreover, understanding how the global carbon cycle works is essential for experts to predict how our climate may behave in the future.

C. Explain the meaning of the following words and word combinations.

1. A greenhouse.
2. Fossil fuels.
3. The Ice Age.
4. A decade.
5. Carbon emissions.
6. CFC.

D. Discuss the following:

1. What are the dangers of global warming?
2. Do you always believe what scientists say about global warming?
3. Is global warming the biggest current threat to our planet?
4. Are you seriously concerned about the process of global warming?
5. Is it OK to ruin the beauty of the countryside (building alternative sources of energy, etc) to stop global warming? Can you think of any examples of such environmental impact in the world?
6. Who has a greater responsibility to reverse global warming, our governments or us?

Task 6. **Write a magazine article about possible consequences of global warming in Belarus.**

[2] Task 7. **You will hear an interview with a man called Daren Howarth, who works as a carbon coach.**

A. Predict what a carbon coach is. Share your ideas with your groupmates.

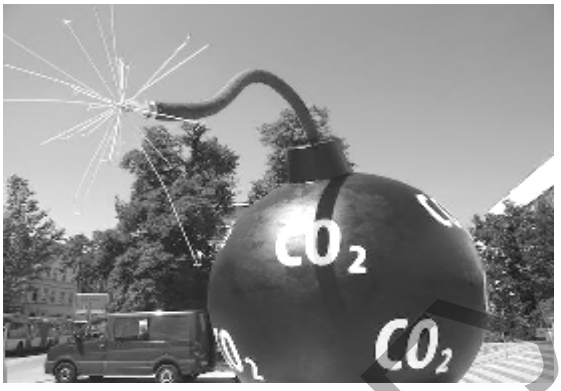
B. Before listening, try to explain the meaning of the following words.

Global warming, carbon dioxide, environmentally friendly living, energy-saving, ecologist, greenhouse gas emission, carbon meter, wind power, solar panels.

C. Listen to the interview and complete the sentences with the words from the recording.

Daren says that a carbon coach works full-time as a (1) _____ with various clients. Before becoming a carbon coach, Daren trained to be an (2) _____. When assessing a family's carbon footprint, Daren looks first at their (3) _____. Daren uses what's called a (4) _____ to see how much electricity things use. Daren points out that (5) _____.will help pay for roof insulate. Daren feels that using (6) _____ of the old type is the worst waste of energy he sees. Daren helped to reduce a band's carbon footprint at (7) _____ as well as on its CDs. Daren mentions a new type of green home called an (8) _____. The new green home uses both the sun and (9) _____ to produce electricity. Daren suggests buying a (10) _____ which gives more information about the new green home.

D. Listen to the recording once again and prove that the following statements are true or false.



1. Most people know nothing about global warming.
2. Daren Howarth gives people advice about how to achieve friendly living within a family.
3. Daren Howarth clients are private individuals, ordinary people with various interests who need his help.
4. Daren Howarth had always been interested in energy-saving and the environment and he trained as an engineer.
5. The term “greenhouse gas emission” is just the same as the term “carbon footprint”.
6. His job is to calculate total carbon footprint in terms of carbon dioxide.
7. Daren Howarth can’t stand it when people are still using old-fashioned central heating.
8. Up to ninety percent of the energy produced by light bulbs is lost as heat.
9. The carbon footprint for a disc is just a few kilos.
10. Daren Howarth dreams of living in a green house built from recycled materials.

E. Discuss the following:

1. What are the functions of a carbon coach?
2. Does this job contribute to the preserving of the environment? Give your arguments.
3. What are his plans for the future? What do you think about his plans?
4. Do you use anything that in Daren Howarth’s opinion is inefficient or anything that he can’t stand?
5. Would you like to consult Daren Howarth? What questions would you like to ask him?
6. What do you think about living in a green house? Do you see any advantages and disadvantages of such a house apart from those mentioned in the recording?

Task 8. **Would you like to be an environment coach? What ecological aspect would you like to coach so as to help people protect the environment? Give your arguments.**

U N I T 6
WELCOME TO THE NEW WORLD

Task 1 **Do the following task.**

A. Match the words in Column A with the words in Column B to make meaningful combinations.

Column A	**Column B**
oil	rain
exhaust	spill
ecological	disaster
greenhouse	layer
acid	effect
ozone	warming
global	fumes

B. Use the word combinations from A to fill in the gaps in the sentences below.

1. I think that the smoke from factories is more dangerous to the atmosphere than the _____ from cars.
2. _____ can destroy forests and affect wildlife.
3. I don't believe that there is a hole in the _____ because I can't see it.
4. I like the fact that the _____ is making the planet hotter. I like hot weather so I don't think that _____ is a problem.
5. I think the _____ in the Galapagos Islands was a preventable _____.

Task 2. **Derive the correct words from the words in the brackets.**

1. What can we do to reduce the *(pollute)* of the atmosphere?
2. The change in the climate has produced *(terror)* floods.
3. Many rare species are in danger of *(extinct).*
4. Many of gases produced by factories are *(harm)* to our health.
5. Protecting the environment is essential to our *(survive).*
6. Exhaust fumes have *(damage)* effects on the environment.
7. Many countries must control the growth of the *(populate).*
8. The *(protect)* of the environment is everyone's responsibility.
9. While some countries get richer, the *(poor)* in the others gets worse.
10. Millions of people in the world are threatened with *(starve).*

& Task 3. **Read about some of the predictions scientists are making about climate change.**

A. Complete the predictions with a word from the list below.

Words for inquiries: become, closed down, risen, suffering, doubled, risen, having, melted, having, risen.

STORM CLOUDS ON THE HORIZON

Climate change is now something that we cannot close our eyes to, and governments all over the world have finally realized that they have to sit up and take notice. These are some of the things that many scientists predict will happen if we carry on polluting the atmosphere with CO_2 emissions.

Short term: by the year 2050

– More than a third of the world's plant and animal species will have _____ extinct.

– The ice in the Arctic Sea will melt every summer, causing the extinction of polar bears, and many glaciers, for example on Mount Kilimanjaro, will have _____ completely.

– 50% of the worlds ski resorts will have _____ due to lack of snow.

Mid term: by the year 2100

– Sea levels will have _____ by between 16 cm and 69 cm. This means that low-lying islands like the Maldives will no longer be habitable.

– The number of serious coastal storms and tsunamis will have _____.

– Northern European cities, e.g. Paris and London will be _____ 50 days a year of heat waves when temperatures are over 30°C (there are currently 6—9 days).

Long term: by the year 3000

– Temperatures will have _____ by about 15°C.

– Sea levels will have _____ by more than 11 metres, flooding large areas of Bangladesh, and many low-lying cities, such as London. Hundreds of millions of people will be displaced.

– One third of the world will be _____ from extreme droughts, and half the world will be _____ moderate droughts. Tens of millions of Africans will have to emigrate.

B. Name the predictions that worry you most and discuss them with your groupmate(s). Use the following language patterns:

Expressing fear and anxiety:
– Oh, it's just horrible!
– But that's so ridiculous!
– Oh, it's just awful!
Expressing hope:
– Well, maybe all is not lost yet.
– Well, maybe we can do something before it's too late.
– Well, maybe people will get some sense / see sense before it's too late.
Expressing frustration:
– What's the point?
– Why bother?
– So what?
– That'll make it worse

C. In pairs, rank the following outcomes of climate change. Place the most serious thing at the top.

1. Winters will be 10 degrees colder.
2. Malaria will spread around the globe.
3. Cockroaches will be everywhere.
4. Africa will have more droughts.
5. Hurricanes will be stronger.
6. Skin cancer will increase.
7. Drinking water will be expensive.
8. Many countries will disappear under water.
9. Water wars will break out between nations.
10. Polar bears and penguins will disappear.

& Task 4. **Read the following text about the future of Britain and Russia.**

A. Explain what these natural phenomena and cataclysms mean.

Flood, drought, malaria, tide, greenhouse effect, mudflats, salt marshes, permafrost.

B. Match the words on the left with their Russian equivalents on the right.

1) to hasten	a) чуждый, несвойственный
2) to worsen	b) опустошение, разрушение

3) jeopardy	c) ускорять
4) alien	d) ухудшать
5) a surge	e) приостанавливать, временно прекращать
6) to suspend	f) большая волна
7) havoc	g) полагать, считать
8) to reckon	h) опасность

C. Read the text to find out the reason for such a pessimistic future prediction for Britain and Russia.

WELCOME TO THE NEW WORLD

Floods in Yorkshire. Millions facing drought in China. Permafrost melting in Russia. Malaria spreading across Africa. And that's just the start. Guardian writers on how global warming is wreaking havoc around the world.

BRITAIN

Britain will be a warmer place in future, with drier summers and more frequent droughts, but with wetter autumns and winters. In other words: more rain and more river flooding.

And there is a double jeopardy. The coastal areas are pinched in danger of fresh water flooding from within. In danger of high tides from without.

Higher sea levels as a result of global warming, combined with the fact that southern England is sinking by about 30 centimetres a century, means that tides will become more threatening. One pessimistic estimate puts the average sea level rise around the coast of East Anglia at 80cm in 50 years' time.

One of the greatest threats to Britain is a storm surge — a gigantic wave of low pressure sweeping across the Atlantic from Canada and funnelling down the North Sea which raises the ocean by 30 cm and sends it crashing into the English east coast.

The surge tide of February 1953 killed more than 300 people in eastern England. It was to prevent such disasters happening again that defences such as the Thames barrier were built.

Detailed regional studies of climate change impacts across the UK show a patchwork of consequences, some dramatic, some sad, some welcome.

In the south-east, average annual temperatures are expected to increase by 1.2 to 3.4 C; winter rainfall to go up by 6—22%, summer rainfall to drop by 8—22%.

Tracts of country like the Surrey Hills, Kent's "garden of England" and the Hampshire downs could experience invasion by alien species. Faster coastal erosion will hasten the end for coastal landmarks like Hurst Castle Spit, Selsey Bill and East Head. New crops like grapes, soya, maize, sunflowers and navy beans could spread. Milder weather is good news for species such as the Adonis Blue butterfly, sand lizard and smooth snake; bad for the likes of the mote cricket, marsh gentian and shallow-rooted beech.

In the north-west, 95,000 people, and much of the region's industry and tourism, lie in the coastal plain. Hundreds of miles of sea defences protect them, and local authorities reckon existing and planned new works should keep towns like Morecambe and Blackpool safe for 50 years.

There is concern over biodiversity and wildlife habitats. Mudflats and saltmarshes used by species like the knot, curiew, oystercatcher, pink-footed goose, godwit and sanderling may disappear; in upland areas like the Cumbrian mountains, the Pennines and the Peak District, Arctic species like the arctic char, a fish, and plants such as Alpine Lady's Mantle will be put under pressure.

James Meek

RUSSIA

The permafrost — permanently frozen subsoil — which covers 65% of Russia is becoming less permanent. A gradual melting process has already begun in developed areas of Siberia and scientists have warned that if temperatures continue to rise, the southern permafrost frontier could retreat by around 150 miles over the next 25 years.

In places like the diamond-producing town Mirny, in Yakutia, a quarter of the population have been evacuated because their homes, built on permafrost foundations, have begun to slide into the melting soil.

Services along the newer Trans-Siberian railway track have been suspended for days, as parts of the track twist and sink. Roads and bridges have buckled, while oil and gas pipelines have been damaged by the gradual shifting movement. Villagers in the northern extremities of Russia, who have traditionally stored their food in pits cut into the permafrost, have returned to find their stocks destroyed.

Were the upper section of permafrost to melt, scientists believe 12 times the level of CO_2 normally in the atmosphere would be released, and 2,500 times the normal level of methane, worsening the greenhouse effect.

Amelia Gentlemen

D. Answer the questions.

1. Why are the coastal areas in Britain in double jeopardy?
2. What is the pessimistic estimate about the sea level rise?
3. Why can the tide become more threatening? What are other potential threats for Britain?
4. What can be done to prevent natural disasters?
5. What are the “alien species” that can invade some of the British regions?
6. Why will some of the species be put under pressure?
7. In what way can global warming influence the northern extremities of Russia?
8. What will happen if the upper section of permafrost melts?

E. What do these phrases mean?

1. To wreak havoc.
2. Storm surge.
3. Double jeopardy.
4. Patchwork of consequences.
5. Alien species.
6. Coastal erosion.
7. Coastal landmarks.
8. Wildlife habitats.

F. Insert prepositions where necessary.

1. The coastal areas are _____ danger _____ fresh water flooding.
2. Southern England is sinking _____ 30 centimetres a year.
3. One _____ the greatest threats _____ Britain is a storm surge.

4. A gigantic wave of low pressure is sweeping _____ the Atlantic and funneling _____ the North Sea.
5. The west coast is vulnerable _____ similar surges _____ the Irish Sea.
6. There is concern _____ biodiversity and wildlife habitats.
7. The homes built _____ permafrost foundations have begun to slide _____ the melting soil.

G. Translate the names of animal and plant species mentioned in the article.

H. Discuss the following:

1. What springs to your mind as soon as you hear the phrase “climate change”?
2. What are the dangers of climate change?
3. Do you think people around the world are actually concerned about climate change?
4. Do you think scientists and governments can control climate change?
5. Has your life been affected by climate change?
6. What have you done today that has added to climate change?
7. What do you do every day to help save the planet?

I. Group work.

1. Discuss the problem of changing climate in Belarus. Are weather patterns the same now as, say, ten years ago? Is this good? In your opinion, what will the weather in Belarus be like in the future?
2. In recent years it seems the world’s weather has gone crazy. Don’t you think so? Make a list of examples of abnormal weather happening around the globe.

Task 5. **Write a magazine article about climate change and the future of the Earth. Include imaginary interviews with someone who thinks it’s too late to save the Earth and someone who thinks we have plenty of time.**

[2] Task 6. **Listen to the recording “Earth Hour”.**

A. Have we run out of time to save the Earth or will the Earth survive? Express your point of view.

B. Match the words on the left with their synonyms on the right.

1) globe	a) focusing on
2) takes place	b) instead of
3) drawing attention to	c) just
4) opportunity	d) turned
5) reach	e) results in
6) switched	f) happens
7) raising	g) get to
8) leads to	h) world
9) rather than	j) increasing
10) simply	k) chance

C. Match the following phrases from the recording.

1) buildings around the globe will be	a) too late
2) a way of drawing attention to the dangers	b) has recovered a little
3) people of all ages, nationalities,	c) about climate change
4) Organizers hope their message will reach	d) good exercises
5) the largest demonstration of public concern	e) dark for an hour
6) Many see it as a being too little,	f) in the dark
7) We are well past the time for feel-	g) a billion people
8) people will think the climate	h) of climate change
9) the need to reduce our daily	j) race and background
10) sitting around	k) energy consumption

D. Listen to the recording once again and say whether the following statements are true or false.

1. Many buildings will be in darkness for an hour on March 28.
2. Earth Hour is organized by the World Wildlife Fund.
3. People can vote for who they want to save the Earth.
4. Maybe one billion people will hear about Earth Hour.
5. There are quite a few people who think Earth Hour will change little.
6. A climate campaigner said the Titanic sank because of climate change.
7. Earth Hour means the Earth will make a recovery by the next morning.
8. An environmentalist said sitting in the dark is the best thing we can do.

E. Discuss the following:

1. Do you think Earth Hour is a good idea? Or do you agree that Earth Hour is “too little, too late”?
2. Do you think the even should be Earth 12 Hours and people should turn off their lights for a lot longer?
3. Will you turn off the lights for Earth Hour?
4. Have you taken part in any other climate change events?

Task 7. **Role-play.**

Imagine that you are a journalist who writes the column “All about Nature” in the magazine “I Want to Know Everything”. Readers send you letters and you answer them.
One of the letters is the following:

“Dear Mrs. Dolores. What is going on with the weather? Weather rules practically stopped working. Why is the climate changing nowadays? What will happen to us in 20 years? Please, help me find the answers. Ann.”

Answer your reader.

U N I T 7

NATURAL DISASTERS

Task 1. **Read the sentences below. Then match each sentence with the disaster it describes.**

1. Several people were walking along when suddenly tons of earth came crashing down the hillside and blocked the road in front of them.
2. Over 50,000 people in Ethiopia have died of starvation in the past month. Questions are being asked concerning the delay in the supplies of grain which have recently been sent to them.
3. The winds have already strengthened considerably and the sea is now very rough indeed. As a result, boats across the harbour have stopped sailing and all large ships have put out to sea.
4. The river overflowed in several places and huge areas of farming land are now several feet under water. Boats are being used to rescue people in the nearby villages.
5. Suddenly the ground shook beneath our feet and the tall building was destroyed. Opposite the college began to sway. The windows and the doors rattled, and several bookcases in the college library came crashing down.
6. Tankers full of water were sent, but it was too late to save many of the animals and crops there. The whole area was like a vast desert.
7. Smoke poured out of the crater but no one expected an eruption. A week later, however, hot lava began to flow down the side of the mountain.
8. It swept onwards, covering everything in its path. The travellers had to get off their camels and lie down until it had eventually passed.
9. Flames swept through the block of offices, burning everything inside. Two hours later only the empty shell of the building remained.
10. The first sign of illness was a pain in the chest, followed by a great thirst and a burning lever. Few medical supplies reached the area and consequently almost all the victims died.
11. It must have been at least twenty feet high as it swept towards the shore. In a few seconds it destroyed all the houses in its way, drowning everyone inside.

Words for inquiries: fire, typhoon, earthquake, tidal wave, plague, volcanic eruption, drought, sandstorm, landslide, flood, famine.

Task 2. **Do the following task.**

A. Explain what the following words mean.

1. Catastrophe.
2. Disaster.
3. Crisis.
4. Tragedy.
5. Emergency.
6. Missing.

7. Victim.
8. Casualty.
9. Injured.
10. Survivor.
11. Rescuer.

B. Match the words on the left with those on the right to form useful "disaster" collocations.

1) aid	a) aid
2) distribute	b) off
3) relief	c) supplies
4) washed/swept	d) workers
5) cut	e) regions
6) affected	f) effort
7) stricken	g) away
8) medical	h) areas

C. Use the collocations from B to complete the extract from the newspaper article given below.

In some cases whole towns have been (1) _____ by the waves. In some of the (2) _____ entire communities are still totally (3) _____ because the surrounding infrastructure has been destroyed by either the tsunami or the earthquake or both. International charity organisations and (4) _____ are finding it hard to (5) _____ including vital (6) _____ to the (7) _____, partly due to the size of the (8) _____ and partly due to the scale of the destruction.

Task 3. **Fill in the blanks in the sentences below with the alternative which fits it best.**

1. You shouldn't throw _____ old newspapers, you should recycle them.
   a) up b) away c) down d) in

2. The leopard is _____ danger of becoming extinct unless we take action.
   a) under b) to c) in d) from
3. The _____ of the ozone layer is a serious problem that must be dealt with now.
   a) destruction b) disaster c) devastation d) damage

4. A tornado _____ the islands yesterday.
   a) swept b) ran c) burst d) broke

5. 200 people were _____ and dozens of buildings were damaged in the hurricane.
   a) wounded b) hurt c) damaged d) injured

6. The Siberian tiger is under _____ of extinction.
   a) fear b) risk c) danger d) threat

7. Snakes and crocodiles are _____.
   a) mammals b) reptiles c) species d) lizards

8. Many species of animals have become _____.
   a) hunted b) dead c) extinct d) alive

9. The rainforest is _____ to many species of birds and animals.
a) place b) house c) home d) hotel

10. A volcano has _____ in Indonesia.
a) shaken b) erupted c) exploded d) burst

11. There were only three _____. All the other passengers died instantly.
a) survivors b) victims c) injured d) suffered

12. The _____ of this river was caused by the overuse of pesticides by farmers.
a) emission b) deforestation c) contamination d) plantation

Task 4. **Complete the passages by choosing the most appropriate word from those given below.**

A. Famine and flood

Words for inquiries: drought, famine, starve, helicopters, drown, flood, starvation, cut off, drop.

If a country has no rain for a long time, this dry period is called a (1) _____. In countries dependent on their agriculture, this can lead to a period of (2) _____, when there is not enough food and people actually (3) _____. They die of (4) _____. When it rains very heavily and the land is under water, this is called a (5) _____. In this situation people and animals can (6) _____. Sometimes (7) _____ have to (8) _____ food supplies to people in areas which are (9) _____.

B. An earthquake and an epidemic

Words for inquiries: medical teams, earthquake, toll, trapped, rubble, casualties, epidemic, rescue teams, outbreak.

In some parts of the world, the ground shakes from time to time. This is called an (1) _____ and if it's a bad one, the number of (2) _____ is sometimes large. Buildings often collapse and (3) _____ have to search for people who are (4) _____ under the (5) _____. Sometimes water supplies are affected and there is an (6) _____ of disease, called an (7) _____. (8) _____ are sent by the government to help the sick. The death (9) _____ can reach hundreds or even thousands.

& Task 5. **Read the following text about the jeopardy of extreme weather.**

A. How many types of natural disasters can you think of? What kind of natural disaster can cause the greatest harm? Rank disasters from the most frightening to the least frightening.

B. Read the text to find out the reasons for natural disasters.

Melting ice caps, annual summer heat waves, tropical super-storms — the potential effects of global climate change are rarely out of the headlines.

The world's leading climate scientists unanimously agree that human activity is accelerating global warming. It is a fact that the world's ten warmest years have all occurred in the last twelve years. A United Nations panel on climate change predicted that global temperatures could rise by as much as 5.8 degrees this century. This could have catastrophic consequences for vast areas of the globe. If there were not significant cuts in greenhouse gas emissions soon, especially from fossil fuels, there would be greater risks of more extreme weather. This includes more droughts, hurricanes, more violent and destructive storms, bushfires, shrinking polar ice and coastal flooding threatening the life of our planet. It now seems it is more urgent than ever for coal and gas guzzling economies to curb consumption and seek more efficient energies.

C. Enumerate the natural disasters mentioned in the article.

D. Discuss the following:

1. They say that the world is a living creature, and humans are a virus that makes the world sick. Natural disasters are the symptoms. Do you agree or disagree with this idea?
2. Some people chase tornadoes. They drive as close as possible to experience the amazing power of nature. What adjectives would you use to describe these people? Why did you choose these adjectives?
3. What are the most dangerous weather phenomena that happen in Belarus?
4. Have you ever experienced a natural disaster? If yes, what happened?
5. If you were in a disaster and survived, what would you do immediately afterwards?

[2] Task 6. **You will hear a talk about what to do in case of a natural disaster.**

A. While listening, fill in the blanks with the missing words.

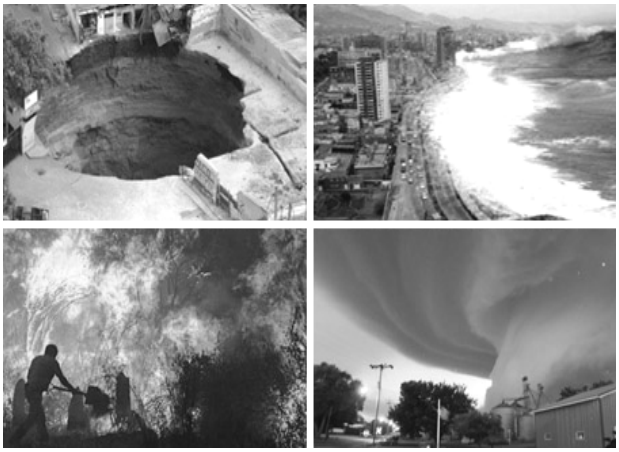
SAFETY INSTRUCTIONS FOR NATURAL DISASTERS

Earthquake

Protect yourself under a _____ or _____.

Be sure to cover _____.

Carry a _____ with you.



Hurricane

Board up all the _____.

Take shelter in the _____.

Keep supplies such as _____, bottled water and _____.

Flood

Wear clothing that is _____.

Climb onto your _____ and wait to be rescued.

B. Are you prepared for a natural disaster? Do you know what to do when you are caught by other natural disasters (tsunami, tornado, fire, etc.)? Make up a list of the right actions in such cases.

C. Answer the following questions.

1. Do you think scientists will ever be able to predict the time when natural disasters will happen? Why (not)?
2. Do you think scientists will ever be able to prevent natural disasters? Why (not)?

Task 7.

A. Read the given headline and decide what kind of disaster it is and when it might happen.

MAJOR ENVIRONMENTAL DISASTER HERALDS END OF THE HUMAN RACE

B. Imagine that the headline is real and that the disaster scientists have predicted is actually going to happen. Brainstorm all the possible causes and consequences of this disaster.

C. Read the following situation and be ready to solve it.

Scientists working for the United Nations have discovered that a deserted island in the Pacific will not be affected by the disaster. There is enough vegetation and animal life on this island to sustain human life. The United Nations has decided to send a group of people to this island before the disaster strikes. This group of people will be all that's left of the human race and will have to start again. There is a helicopter waiting to take them to the island. However, time is running out and there has been a terrible mistake. The helicopter can only take ten people, including the pilot (male, 32 years old). There are twelve people waiting to get on. The United Nations has appointed YOU to decide which nine people are saved and which three must stay behind. You must come to an agreement on this.

The following twelve people are all at the airport.

1. Dr. Ian Osborne (male, 40) is a British academic from London. He is a very good diplomat and has helped make many peace agreements in different parts of the world.
2. Francesca Ceppo (female, 39) is a linguist and interpreter. She speaks twenty different languages.
3. John McDonnell (male, 33) is a New York fire fighter. He was one of the only survivors of his division in the September 11 attacks in New York.
4. Dr. Hammed Bedrouni (male, 36) is a doctor from Paris. He is a leader in his local Muslim community.
5. William Patween (male, 54) is an indigenous tribe leader from an island near the one where the group is being sent. He is familiar with all the flora and fauna of the island. He carries a knife and a spear. He has cancer.
6. Jean Bains (female, 32) is an expert marine biologist from India and knows all about the seas and the fish of the area. She is an alcoholic.
7. Sean Lucas (male, 35) is a British SAS officer. He is familiar with surviving under extreme conditions and a good leader. He is homosexual.
8. Kris McDonnell (female, 31) is John McDonnell's wife. She is a police officer and carries a gun. She is three months pregnant.

9. Robert Sisulu (male, 41) is a black South African judge and an experienced hunter. He has a rifle.

10. Father Eugenio (male, 26) is a Catholic priest from Spain. He has a lot of experience in agriculture and worked as a missionary in the South Pacific.

11. Odette Bouchard (female, 23) is a top model from France.

12. Amanda Green (female, 24) is a telecommunications engineer from Sydney Australia. She was the winner of the Australian television reality

Task 8. **In diaries people often reveal more about their views and feelings than they would share with others in a conversation. You have recently experienced the eruption of a volcano nearby or an earthquake (or another disaster). Say what you saw and how you feel about it.**

Task 9. **Choose any quotation from this list and comment upon it. Do it in a written form.**

"The only thing we have to fear on this planet is man."

Carl Jung

"If you poison the environment, the environment will poison you!"

Tony Follari

"Treat the Earth well, it was not given to you by your parents, it was loaned to you by your children."

Kenyan proverb

"Mother planet is showing us the red warning light — be careful — she is saying. To take care of the planet is to take care of our own house."

The Dalai Lama

"On Spaceship Earth there are no passengers; everybody is a member of the crew. We have moved into an age in which everybody's activities affect everybody else."

Marshall McLuhan

U N I T 8
AIR POLLUTION

Task 1. **Read the text below. Use the word given in capitals at the end of each line to form a word that fits in the space in the same line.**

Despite the damage being done to the environment, the number of motorists on the roads is constantly increasing. People think driving is (1) _____ to taking public transport, or to cycling or walking, no matter the cost involved.	PREFER
Apart from the expense of car (2) _____, there is also a price to be paid for the lack of physical exercise when relying on driving. It seems that national and individual (3) _____ is not always a good thing, as people are becoming more and more (4) _____ dependent. In spite of this growing worry, many people will say that the car is (5) _____ and it is an (6) _____ of success.	MAINTAIN PROSPER TECHNOLOGY BENEFIT INDICATE
People who are concerned about the environment and have an (7) _____ of the Earth's limited resources often put forward a (8) _____ argument — those who insist on driving their car into work or into the city centre should be (9) _____ by higher taxes or even fines. It seems that even drastic solutions like these won't persuade some drivers to give up the (10) _____ and freedom they feel when using their car.	AWARE CONTROVERSY PENALTY DEPEND

Task 2. **Complete each sentence with one of the words given below.**

1. Factories often dispose of _____ products in rivers and the sea.
2. The chimpanzee is one of many _____ which will soon be found only in zoos.
3. The earth's atmosphere is growing warmer partly because of the so-called _____ effect.
4. Many scientists believe that the natural _____ of the world's ecology is threatened.
5. Overexploitation of fossil _____ such as coal and oil will lead to an energy crisis.
6. Many people prefer to eat fruit and vegetables which have not been sprayed with _____.
7. Within a few years, _____-free petrol will be used throughout Europe.
8. Many household products actually contain _____ which are harmful to the environment.
9. In some cities poisonous smog is created from car _____.
10. Another problem for the nuclear industry is _____.
11. Another cause of global warming is emission of carbon _____ from power stations and factories.
12. In an increasing number of areas there are _____, where public can deposit used glass containers.
13. Many people died because they breathed a terrible _____ of smoke and fog which the Londoners called _____.
14. Villagers are hoping for the rain this month after nearly a year of _____.

Words for inquiries: balance, fuels, lead, dioxide, species, chemicals, fumes, greenhouse, pesticides, smog, mixture, drought, "bottlebanks", leukaemia, waste.

& Task 3. **Read the following text about air pollution.**

A. Match the verbs with their meanings.

1) combat	a) to foretell
2) curb	b) to fulfill or perform
3) deter	c) to fight, to struggle
4) implement	d) to prevent from acting
5) predict	e) to check, to keep under control

B. Are road pollution and air pollution interconnected? Is there a lot of road pollution near where you live? What bothers you more, air pollution or noise pollution?

C. Read the text and say what major air pollutants are.

HOW TECHNOLOGY IS HELPING TO CLEAN UP THE STREETS OF BRITAIN

New measures to combat pollution could mean cars being kept out of city centres.

Gavin Hadland

When air pollution reached worrying levels in Paris, half the cars were ordered off the road and fares were abolished on public transport. But when the same levels of nitrogen dioxide were detected

in London, no action was taken. Though more than a fifth of the gas produced in the UK comes from motor vehicles. So are we doing enough to combat the problem?

The British Government is already trying to fight the urban menace of air pollution. It runs an hourly information service about smog levels — available to the public on Ceefax, radio, newspapers and the Internet — to deter motorists and help those with asthma and lung or heart diseases to decide when to stay in.

There are various national programmes to monitor air quality in the UK, but with legislation expected soon, local authorities are increasingly being expected to play their part in curbing pollution and its main cause — traffic on the road. Computer monitoring technology is the weapon they are using to fight it.

To fit in with the Government's plans, roadside air-quality monitors could be linked to computer systems across Britain that change traffic lights, levy charges on motorists or block roads.

Air pollution can be measured in many ways, using equipment as simple as a plastic tube with absorbent material at one end, or sophisticated electronic analysers that take measurements every second.

In Nottinghamshire and Leicestershire a new system has been developed to link pollution with traffic flow. A project known as Emma (Environmental Monitoring in Metropolitan Areas), partly funded by the Government, will lead to traffic management strategies to reduce emissions and improve the environment.

A network of air quality sensors, developed with Siemens, has been installed on main roads to enable researchers to predict congestion or pollution problems up to 48 hours in advance.

In Leicester such predictions have been used to change the timing of traffic lights so that fewer cars are allowed into problem areas, or "hotspots", when a build-up of pollution is detected there. Margaret Bell of the Institute for Transport Studies at Leeds University is overseeing Emma.

"When we forecast high levels of pollution we will try to persuade the public to car-share or to delay short trips," she says. "If they respond we can measure any significant drop in vehicle levels and corresponding pollution levels. We can then go back to the public and tell them they've done a good job. If people stopped making short trips by car we could reduce pollution levels. In fact if everyone kept their car engines and exhausts in good condition, we could reduce pollution by 50 per cent."

Emma could be linked to another system being tested in Leicester, where cars are electronically tagged and drivers charged a fee when they enter the city centre. Such a plan would fit in with the Government's plans. "The experiment will be to see how much motorists would have to be charged before they use park and ride," says Dr Bell. "So far, research has shown that people are willing to pay a lot to avoid giving up their cars."

Technology for deterring motorists such as road pricing and car metering systems has been shown to work, but would it be possible to implement such schemes? Roger King of the Society of Motor Manufacturers and Traders has said: "The problem with getting people to travel by public transport is that it is always the other guy who should leave his car at home."

People must reduce the number of cars on the road — that is accepted. But human nature is such that it will be difficult. Members of the public are very married to their cars. But if they don't take advice on pollution now it may be too late in the future.

D. Answer the following questions according to the text.

1. What do traffic management strategies include?
2. How can air pollution be measured?
3. Why is it important to predict pollution levels?
4. How do people respond to the introduction of the new traffic management measures?

E. Pick out from the text.

1. The names of the air pollutants.
2. The names of the diseases that might be caused by air pollution.

F. Explain what the following mean.

1. The urban menace of air pollution.
2. The system has now been updated.
3. To monitor air quality.
4. Levy charges.
5. "Hotspots".
6. A build up of pollution.
7. Cars are electronically tagged before they use park and ride.

G. Fill in the gaps with the appropriate prepositions.

1. An information service available _____ the public.
2. To reduce pollution _____ 50 per cent.
3. To fit _____ with the Government's plans.
4. Air quality monitors could be linked _____ computer systems.
5. To take advice _____ pollution.
6. To reduce the number of cars _____ the road.

H. Group work.
Compare the measures intended to combat pollution in Great Britain with those taken in Belarus.

[2] Task 4. **Listen to the people talking about problems on their island.**

A. Listen to the recording and find out which speaker (Sandra, Bill or Janet):

– didn't hear a warning;
– thinks the factory causes air pollution;
– expected a warning;
– believes that everyone is responsible;
– saw somebody littering;
– mentions a new building project;
– is worried about wildlife;
– suggests doing something.

B. Listen to the recording once again and say whether the following statements are true or false.

1. Janet moved to the island because of its clean air.
2. Today the factory on the island is pumping out enormous clouds of thick grey smoke.

3. Tourists bring their cars across or hire them on the island, and that pollutes the island.

4. Sandra thinks that the whole island is becoming one big environmental disaster.

5. The island is free of rubbish because people don't dump their rubbish in such beautiful areas.

6. Janet tries to recycle all her wastes.

7. There are no trees being cut down on the island.

8. Soon nobody will want to come on the island anymore.

C. Answer the following questions.

1. What are the problems faced by Sandra's island? Enumerate them.
2. What are they ready to do to get their beautiful island back?

D. Suggest possible solutions to the problems on the island.
Use the following language patterns for making suggestions:

1. A good idea would be ...
2. Why don't we ...
3. We should/could ...
4. If we ... then ...
5. Perhaps we should ...
6. I think ...

Task 5. **Role-play.**
Your local council is going to publish a brochure "Cleaning Up Our Town". The brochure will include short articles on how to improve the environment in your native town. You have been asked to write a short article for this brochure on any local ecological problem.

U N I T 9
MARINE POLLUTION

Task 1. **Complete each sentence with a pair of verbs with opposite meanings. The first letters of the words are given to you.**

1. People should be encouraged to *p*_____ the environment, rather than *d*_____ it.
2. We should try to *p*_____ disasters happening, not just *l*_____ them happen.
3. Everyone should try to *c*_____ up beaches, and not to *p*_____ them.
4. It would be a good idea to *p*_____ more trees, not to *c*_____ trees.
5. We can use things again if we *r*_____ rather than *t*_____ them away.

Task 2. **Read the text and decide which alternative (A, B, C or D) best fits each space.**

The Baltic is a small sea, (1) _____ it becomes (2) _____ very easily. Its water changes slowly through the shallow straits. 150 rivers run (3) _____ the Baltic. There are hundreds of factories (4) _____ these rivers and millions of people live among them. Seven

industrial countries (5) _____ the Baltic. (6) _____ a lot of big cities lie on its (7) _____. All of this combined with active navigation of the sea naturally (8) _____ the state of the sea water and the shoreline flora and fauna.

Once we (9) _____ sea it's very difficult to (10) _____ it. Fortunately all the countries in the Baltic area have realized the problem. They co-operate actively (11) _____ solving ecological problems of the Baltic basin. (12) _____ international law and the national laws of the coastal states (13) _____ the regime of environmental protection of the Baltic Sea. The (14) _____ of the agreements among these states is to (15) _____ oil pollution of the sea, to organize rational fishing and the preservation of sea life.

Word	**Variant**			
	A	B	C	D
1	as	because	so that	so
2	muddy	dusty	dirty	greasy
3	into	out of	through	across
4	at	on	in	above
5	gather around	encircle	surround	round up
6	quite	rather	pretty	very
7	beach	coast	shore	banks
8	reflects	effects	forces	affects
9	had polluted	pollute	have polluted	polluted
10	brush	clean	polish	scour
11	in	over	within	for
12	either	neither	and	both
13	deprive	define	decline	defile
14	target	point	objective	aim
15	prevent	protect	preserve	pretend

Task 3. **Read the sentences and underline the correct item.**

1. An international agreement has been reached to halt the *devastation/destruction* of the ozone layer.
2. Deforestation is causing great *disaster/damage* to many of the world's rainforests.
3. If global warming continues, we will suffer the *effects/consequences.*
4. Overpopulation is posing a threat to the earth's *resources/sources.*
5. Many charitable organisations contribute towards *starvation/famine* relief.
6. Most of the *rubbish/residue* collected from the city is dumped in landfill sites.
7. Toxic *waste/sewage* is responsible for polluting many rivers.
8. Exhaust fumes continue to *pollute/contaminate* the air, causing serious breathing problems.
9. We were told to *deposit/discard* our empty bottles in the recycling bin.
10. There has been a *decline/lowering* in the demand for GM foods.
11. The government is looking at ways of protecting the country's *physical/natural* resources.
12. The minister for the environment has devised a *scheme/schedule* to reduce pollution.

13. Giant pandas are in danger of becoming *endangered/extinct* as there are so few of them left.
14. Nothing *survived/remained* of the village after the hurricane; everything was destroyed.
15. Please put your chocolate *packaging/wrapper* in the bin; don't throw it on the floor!

Task 4. **Match each of the words in the 1st group with the words in the 2nd group to form compound terms (collocations) (e.g. acid rain).**

1) **acid**	a) chain
2) urban	b) group
3) oil	c) **rain**
4) nuclear	d) area
5) air	e) spillage
6) sewage	f) pollution
7) pressure	g) waste
8) noise	h) sludge
9) food	i) fume
10) litter	j) layer
11) wastepaper	k) effect
12) car	l) basket
13) ozone	m) bin
14) greenhouse	n) disturbance

Task 5. **Fill in the gaps with necessary prepositions.**

1. Human industrial activity affects _____ the environment and has an impact _____ climatic pattern.
2. There was a drought _____ ten months _____ Central Africa.
3. Have you ever heard _____ the greenhouse effect?
4. Rescue teams searched _____ injured people.
5. Modern farming techniques cause great destruction as farmers spray crops _____ pesticides and dump waste materials _____ land.
6. Be ready to face _____ the fresh water supply problem as man's industrial activity causes depletion _____ water resources and the disruption _____ water cycle.
7. Drivers must keep their car exhausts _____ good condition to prevent air pollution.
8. The chemical factory's owner was found guilty _____ dumping barrels of chemicals into the river.

¿ Task 6. **Watch a video "Oceans in Distress".**

A. Before you start watching, make sure you understand the words below that you will hear in the video.

1) *In distress* — a situation when a ship, aircraft etc is in danger and needs help;
2) *vital, a* — extremely important and necessary for something to succeed or exist. ***Syn. crucial***;
3) *marine, a* — relating to the sea and the creatures that live there;
4) *polar, a* — close to or relating to the North Pole or the South Pole;
5) *contaminate, v* — to make a place or substance dirty or harmful by putting something such as chemicals or poison in it. ***Syn. pollute;***
6) *estuary, n* — the wide part of a river where it goes into the sea;

7) *nursery, n* — a place where plants and trees are grown and sold;
8) *harvest, v* — to gather crops from the fields;
9) *replenish, v* — to put new supplies into something, or to fill something again. ***Syn. refill;***
10) *take a toll on smth* — have a very bad something or someone over a long period of time.

B. Suggest Russian equivalents for the following word combinations. Write them down in the blanks. One is done for you.

Marine environment	_____
Polar seas	_____
Coral reefs	_____
Nurseries of marine life	места размножения морских обитателей
Fish populations	_____
Naturally replenished	_____
Methods of modern fishing	_____
Marine resources	_____

C. Give short answers to these questions.

1. What is happening to the marine environment?
2. What does contamination destroy?
3. Why are fish populations disappearing faster than necessary?
4. How do modern methods of fishing affect marine resources?

D. Look at the picture below and read the accompanying text. What idea from the video do they support?

OIL SPILL CLEAN-UP

Workers use special nets to clean up a California beach following an oil tanker spill. Tanker spills are an increasing environmental problem, for once oil has spilled it is virtually impossible to completely remove or contain it. Because oil and water do not mix, even small amounts spread rapidly across the ocean's surface, and then wash up on broad expanses of shoreline. Attempts to chemically treat or sink the oil may further disrupt marine and beach ecosystems.

E. Discuss the following:

1. Do you think human activity will eventually kill the oceans?
2. What measures should be taken to save the marine life?

Task 7. **Role-play.**

You are a green person who cares about nature protection a lot. You decide to organize a campaign called "A Green Day at Foreign Language Faculty". The dean is interested in your initiative and asks to prepare a plan of this day. You have thought over the aim of this campaign, its functions and have made up the plan. Today you introduce it to the dean.

U N I T 1 0

DEMAND FOR BEEF SPEEDS DESTRUCTION OF AMAZON FOREST

Task 1. **Complete the sentences choosing the correct word from those given below.**

Words for inquiries: deforestation, quota, herd, logging, play down, slaughterhouse, indigenous, rancher, justifiable, restrict.

1. A _____ is a building where animals are killed for their meat.
2. A large group of animals that live and move about together is called a _____.
3. A _____ is someone who owns or manages a large farm in the Americas.
4. _____ is the process of removing all the trees from a large area of land.
5. If you _____ something you place limits on it.
6. _____ is the work of cutting down trees for wood.
7. If something is _____, there is a good reason for it.
8. If you _____ a problem, you try to make it seem less important than it really is.
9. A _____ is an amount of something that someone is officially allowed to have or do.
10. The _____ people of a region are the people who lived there for a very long time before other people came to live there.

Task 2. **Read the sentences and choose the most appropriate preposition.**

1. His wife seemed depressed, and he feared *(for, about, on)* his children.
2. His expressed concern *(for, of, with)* the environment and his disdain for technology.
3. For centuries farmers have linked the behavior of animals and plants *(from, to, with)* changes in the weather.
4. The government provided greater support *(with, to, for)* indigenous territories.
5. You will be paid according *(in, with, to)* the amount of work you do.
6. Our flight was delayed due *(into, to, with)* poor weather conditions.
7. Another discovery from the early space age was the mechanism responsible *(with, to, for)* raising intense planet-wide dust storms on Mars.
8. The dwellers have raised money for environmental protection and made a genuine and lasting contribution *(for, to, in)* the local charities.

Task 3. **Put the words into the correct box (e.g. “a herd of cattle”).**

Herd	Flock	Pack

Words for inquiries: dogs, sheep, cows, birds, wolves, elephants.

& Task 4. **Read an article about deforestation.**

A. Do a quiz to check your knowledge about rain forests.

WHAT DO YOU KNOW ABOUT RAIN FORESTS?

1. All rain forests are located in hot, tropical areas.
   a) true
   b) false

2. Which three countries contain the world's largest remaining rain forests?
   a) Brazil, Indonesia, and Zaire
   b) Brazil, Canada, and the U.S.
   c) Brazil, Mexico, and Panama
   d) Australia, Brazil, and Russia

3. How many people live in the world's rain forests?
   a) 14 thousand
   b) 14 million
   c) 140 thousand
   d) 140 million

4. At what rate are the world's rain forests disappearing?
   a) 100 acres a day
   b) 100 acres an hour
   c) 100 acres a minute
   d) 100 acres a second

5. What percentage of the world's plant and animal species exist only in rain forests?
   a) 5 percent
   b) 15 percent
   c) 35 percent
   d) 50 percent

6. Approximately how many species of insects live in rain forests?
   a) 10 million
   b) 20 million
   c) 30 million
   d) 40 million

7. Which of these woods does not come from a rain forest?
   a) mahogany
   b) black walnut
   c) teak
   d) rosewood

8. Which of these animals does not live in a rain forest?
   a) llama
   b) gorilla
   c) howler monkey
   d) mouse deer

B. Find an expression in the article which means "completely destroying".

DEMAND FOR BEEF SPEEDS DESTRUCTION OF AMAZON FOREST

Europe's demand for beef made last year one of the worst yet for Amazonian deforestation, according to an international research report that quotes Brazilian government figures due to be released soon. Last year satellite pictures showed that almost 26,000 sq km of the world's largest continuous forest was lost, 40% more than in the previous year. And this year's loss could be greater, says the internationally funded Centre for International Forestry Research (CIFOR).

The destruction is being driven by a growing demand for Brazilian beef in Europe because of the fear of mad cow disease and foot and mouth in European herds, last week's CIFOR report says. EU countries, it says, now take almost 40% of Brazil's 578,000 tones of exported beef. Egypt, Russia and Saudi Arabia between them import 35%. The US, which has strict beef quota systems to protect its own ranchers, takes only 8%.

"The deforestation is being fuelled by beef exports, with cattle ranchers making mincemeat out of the rainforests," said David Kaimowitz, the director general of CIFOR and one of the report's authors. He said that logging contributed only indirectly to deforestation. The Amazon's cattle population more than doubled to 57 million between 1990 and 2002, the report says, "[In that time] the percentage of Europe's processed meat imports that came from Brazil rose from 40% to 74%. Markets in Russia and the Middle East are also responsible for much of this new demand for Brazilian beef."

But it plays down US claims that GM-free soya farming for the European market is leading to deforestation. "Although the last few years have witnessed a great deal of justifiable concern about the expansion of soybean cultivation into the Amazon, that still explains only a small percentage of total deforestation,"the authors say. Mr Kaimowitz said that the rate of Amazonian deforestation could grow in the next few years as Brazil became free of foot and mouth disease.

The report suggests that giant ranching operations linked to European supermarkets were now dominating the beef export market. "In the 1970s and 1980s most of the meat from the Amazon was being produced by small ranchers selling to local slaughterhouses. Very large commercial ranchers linked to supermarkets are now targeting the whole of Brazil and the global market," Mr Kaimowitz said.

Last month President Luis Inacio (Lula) da Silva announced new measures worth $133 million to restrict deforestation in the Amazon and provide greater support for indigenous territories and community forestry. "The government's approach goes in the right direction, but unless urgent action is taken the Brazilian Amazon could lose an additional area the size of Denmark over the next 18 months," Benoit Mertens, another author of the report, said.

CIFOR recommends that the Brazilian government should also try to keep ranchers off government land, restrict road projects that open up the forest, and provide economic incentives to maintain land as forest.

From "The Guardian Weekly"

C. Decide whether these statements are true or false according to the article.

1. The Amazonian forest is the world's largest continuous forest.
2. Most of Brazil's beef is exported to the United States.
3. Brazilian beef is popular in Europe because people are afraid that European cattle are diseased.
4. Logging is the main reason for deforestation.
5. Soybean cultivation causes more deforestation than cattle farming.
6. There is no foot and mouth disease in Brazil.

D. Match the beginnings and endings of the sentences from the article.

1) Europe's demand for beef...	a) ... huge area of rainforest will be lost in the next 18 months.
2) Brazilian beef is popular in Europe ...	

3) The US takes only 8% of Brazilian beef exports ...
4) GM-free soybean cultivation cannot be
5) blamed for most of the destruction ...
6) The rate of deforestation is likely to increase ...
7) Although logging is a factor in deforestation ...
8) Unless urgent action is taken ...
9) The transformation of the Amazonian beef industry from a local industry to a global industry…

b) ... because it has strict quota systems to protect its own farmers.
c) ... it only contributes indirectly to it.
d) ... because it accounts for only a small percentage of deforestation.
e) ... has led directly to an increase in deforestation in Brazil.
f) ... because Brazil will probably soon be free of foot and mouth disease.
g) ... was caused by a link-up between European supermarkets and commercial ranchers.
h) ... because European consumers are afraid of mad cow disease in European herds.

E. Discuss the following:

1. Which of these are more important for local farmers: the forests, food, or income?
2. Amazon forests are far away from us. Is it possible that the problem of their deforestation influences the ecological situation in Belarus? Why (not)?
3. Do you think that replanting schemes are important? Whose responsibility is it to replant trees?

Task 5. **Group work.**
How can you help save tropical forests (or our local woods) from deforestation? Find solutions to this environmental problem.

¿ Task 6. **Watch the video clip of the song "Earth Song".**

A. Before watching the video, match the words with their definitions.

1) to pledge
2) to ravage
3) damn
4) trail

a) to promise formally or solemnly
b) a curse
c) a path, track, or road, roughly blazed
d) to cause extensive damage

B. Watch the video and identify the environmental problems that you have seen.

C. Answer the following questions.

1. What is the theme of this song?
2. Who is this song aimed at?
3. Why is the Earth crying?
4. Two worlds are contrasted in the video? What is the aim of this comparison?
5. What shall we leave behind our children if we don't stop damaging the Earth?
6. Is this song a successful attempt to attract our attention to the problem of the Amazonian Rainforest disappearance?
7. Has this song made YOU ponder over the problem of the Amazonian Rainforest disappearance?

Task 7. **Make a poster about any of pristine areas on our planet. Are they under threat?**

U N I T 1 1

GLOBAL WARMING THREATENS TO KILL OFF A MILLION SPECIES

Task 1. **Complete the chart by forming derivatives of the given words.**

Noun	Adjective	Verb	Noun
mountain		publish	
globe		protect	
shock		assess	
extinction		survive	

Task 2. **Use the words/phrases in the list to complete the sentences.**

Words for inquiries: laws, ecosystem, aware, reserve, warnings, habitat, farming, packaging, bank, energy forms, protection.

1. If everyone was environmentally _____, the world would be a better place to live in.
2. A lot of companies have made great effort and now put their products in biodegradable _____.
3. Organic _____ is becoming more and more popular because people know that the fruit and vegetables are free from chemicals.
4. Many countries are choosing to use alternative _____ because they know that fossil fuels are not infinite.
5. If there is not a balanced _____, many plants and animals will eventually die.
6. She believes in recycling: she makes a weekly trip to the bottle _____.
7. Animal _____ is an important part of the work of the World Wildlife Fund.
8. The main point of a wildlife _____ is that animals live in their natural _____.
9. Governments bring in water consumption _____ during a period of drought.
10. Unfortunately, people haven't been listening carefully enough to anti-pollution _____.

Task 3. **Match the words in the left-hand column with the words they collocate with in the right-hand column. To check the answers, consult the text "Global warming threatens to kill off a million species".**

1) become	a) out
2) die	b) change
3) global	c) team
4) greenhouse	d) extinct
5) conservation	e) forms
6) climate	f) area
7) life	g) effect
8) research	h) warming

& Task 4. **Read the following text about extinct species in the world.**

A. Match the words with their meanings.

1) species
2) extinct
3) terrifying
4) irreversible
5) underestimate (n)
6) conservation
7) to migrate
8) assessment

a) very, very frightening;
b) a wrong idea that something is smaller or less important than it really is;
c) a plant or animal group;
d) the management of land and water to prevent it from being damaged or destroyed;
e) to move to another part of the world;
f) no longer existing;
g) impossible to change or bring back;
h) a judgement or opinion.

B. Read the text to find out how such phenomena as global warming and species extinction are connected.

GLOBAL WARMING THREATENS TO KILL OFF A MILLION SPECIES

Recently a group of scientists published the first comprehensive study into the effect of higher temperatures on the natural world. The scientists involved in the research were shocked by what they found. Over the next 50 years about 25% of land animals and plants will become extinct. More than 1 million species will be lost by 2050.

The head of the research team, Chris Thomas, who is professor of conservation biology at Leeds University, described the results of the research as "terrifying". The loss represents more than 10% of all plants and animals and a large part of this is already irreversible because of the extra global warming gases that are already in the atmosphere. But the scientists say that immediate action to control greenhouse gases now could save many more plants and animals from extinction.

The research took two years to complete and provides an assessment of the effect of climate change on six biologically rich regions of the world taking in 20% of the land surface. The research in Europe, Australia, Central and South America, and South Africa, showed that species living in mountainous areas had a better chance of survival because they could move uphill to get cooler.

Professor Thomas said: "When scientists start a research project they hope to produce definite results, but we wish we had not found what we found. It was much, much worse than we expected, and what we have discovered may even be an underestimate."

One of the more shocking findings of the scientists was that half of the 24 species of butterfly they studied in Australia would become extinct. In South Africa, major conservation areas such as theKruger National Park could lose up to 60% of the species under their protection, while more than one third of 300 South African plant species studied were expected to die out, including the national flower, the King Protea.

A study of 163 tree species in the Cerrado region of Brazil which covers one fifth of the country showed that up to 70 would become extinct. Many of the plants and trees that exist in this savannah occur nowhere else in the world. In Europe, the continent least affected by climate change, survival rates were better.

Studies in Mexico's Chihuahua desert confirmed that extinction was more probable on flatter land because a small change in climate would mean that plants and animals would have to migrate for huge distances in order to survive. One third of the 1,870 species that were studied would be in trouble.

Many species are already certain to become extinct because it takes at least 25 years for the greenhouse effect — or the trapping of the sun's rays by the carbon dioxide, methane and nitrous oxide — to have its full effect on the planet. The continuing production of more greenhouse gases, particularly by the United States and European nations, is making matters worse. The research says that, if mankind continues to burn oil, coal and gas at the current rate, up to one third of all life forms will be become extinct by 2050.

From "The Guardian Weekly"

C. Match the beginnings with the endings. There is one sentence for each paragraph.

1) The scientists who were involved in the research …
2) Many plants and animals could be saved from extinction …
3) Species in mountainous areas have a better chance of survival …
4) The results of the research …
5) The national flower of South Africa …
6) Survival rates in Europe are better …
7) … Species in flatter areas have less chance of survival
8) Most greenhouse gases …

a) … because it is least affected by climate change.
b) … were worse than the scientists expected.
c) … because they will have to travel huge distances in order to survive.
d) … were shocked by what they found.
e) … are produced by the USA and European nations.
f) … will probably become extinct.
g) … because they can move uphill to get cooler.
h) … if immediate action was taken to control greenhouse gases.

D. Look in the text and correct the information in these sentences.

1. Over the next 50 years about 20% of land animals will become extinct.
2. More than 1 million species will be lost by 2020.
3. This loss represents less than 10% of all plants and animals.
4. The research took three years to complete.
5. More than half of 300 South African plant species studied were expected to die out.
6. The Cerrado region of Brazil covers one sixth of the country.
7. 1,780 species of tree were studied in Mexico.
8. The greenhouse effect takes 20 years to have its full effect.

E. Discuss the following:

1. What are the main causes of global warming? Is it possible to reverse it?
2. What are the main reasons for extinction of species?

3. Is it necessary to increase people's awareness of how serious the problem of endangered species is or people should realize it personally? If it is necessary, who should do it?
4. What can we do to protect species from becoming extinct? Suggest ways to protect endangered species.
5. Does the Red Book exist in Belarus? Is it necessary?

[2] Task 5. **You will hear a talk about a type of bird called a crane.**

A. Before listening to the recording, recollect everything you know about this bird.

B. Match the words on the left with their synonyms on the right.

1) huge	a) to swop
2) spectacular	b) effective
3) tall	c) lengthy
4) symbol	d) extinct
5) threat	e) menace
6) poisoning	f) cause
7) to change	g) sign
8) to rear	h) to raise
9) evidence	j) contaminating
10) endangered	k) cumbersome

C. Match the words on the left with their antonyms on the right.

1) large	a) insecure
2) worldwide	b) natural
3) small	c) stagnation
4) to decline	d) to thrive
5) poisoning	e) impregnable
6) frequent	f) local
7) artificial	g) purifying
8) development	h) tiny
9) safe	j) cumbersome
10) vulnerable	k) occasional

D. Listen to the recording and say whether the following statements are true or false.

1. Cranes seen as a symbol of peace and happiness in Japan.
2. The crane is North Africa's national bird.
3. There are a total of fifty species of the crane worldwide.

4. Seven of species of the crane are under threat.
5. Seven of species of the crane are found in northern Africa.
6. Another major problem for cranes is poisoning by industrial pesticides.
7. Cranes are the frequent victims of collisions with the power lines.
8. For the Blue Crane, a unique population-boosting programme has been introduced.
9. Wattled Crane is now being fitted with a miniature transmitter, and through satellite tracking.
10. Now seems that the cranes in Africa will be flying into the future with confidence.

E. Listen to the recording again and complete the sentences with the necessary words.

CRANES

In parts of Asia, the crane is thought to represent both (1) _____ and (2) _____.
The total population of the blue crane stands at around (3) _____ individuals. The crane's usual habitat is in areas of (4) _____, which are getting scarcer in Africa. Both small animals and (5) _____ are given as examples of what cranes eat. Cranes often collide with the (6) _____ that are now found across southern Africa. Crane conservation in South Africa is coordinated by an organisation called (7) _____. In one conservation scheme, local women both (8) _____ and (9) _____ like cranes when looking after young chicks. Cranes' movements are also being tracked through the use of tiny (10) _____ linked to airports.

F. Discuss the following:

1. Why do cranes demand attention?
2. Are cranes in danger nowadays? What are the reasons?
3. What measures are taken to help cranes in South Africa fly into the future with confidence?
4. Are cranes found in Belarus? Have you seen them in your native place?
5. Are cranes in danger in Belarus?

Task 6. **Study the Red Book of Belarus and prepare information about any endangered species included there.**

U N I T 1 2
SAVE OUR SEEDS

Task 1. **Complete the sentences with necessary prepositions.**

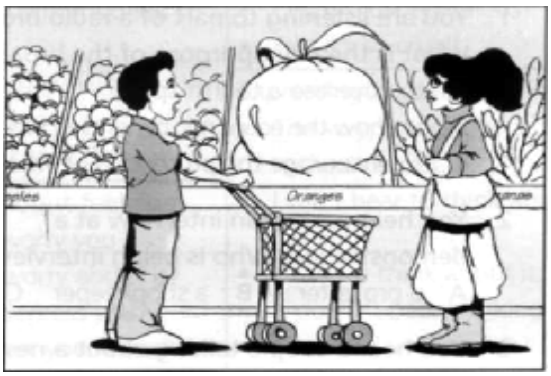
1. Rare species are never _____ _____ danger of extinction.
2. Did you hear _____ the Environmental Weekend at Woodford in June?
3. Global industrialization leads to destruction _____ animal habitats and extinction _____ species.
4. Man is preoccupied _____ economic growth thus he dumps waste materials _____ land, cuts _____ woodlands and upsets _____ the biological balance.
5. The bird is too tame now to survive _____ the wild.
6. Recycling centres dispose _____ the difficulty of getting rid _____ litter.
7. Man must protect _____ rare species _____ extinction.
8. Some countries try to fight _____ pollution by any means.

Task 2. **Do the following task.**

A. Match the words.

A	B
take	engineered
toxic	supply
energy	effect
short	waste
environmentally	a difference
genetically	extinction
make	crisis
face	friendly

B. Use phrases from A to complete the sentences below.



1. Tonnes of _____ is produced every year by factories.
2. The new law regarding hunting will _____ next month.
3. Because of pollution of their habitat, many animal species _____.
4. Food is in _____ in many developing countries.
5. Most _____ goods are expensive.

C. Which phrase can be used to complete the caption?

"There are no labels. How are we supposed to know which fruit has been _____?"

Task 3. **Join the words to make meaningful word combinations. To check the answers, consult the text "Save our seeds".**

1) to set up	a) underwater
2) bring back	b) corners
3) to grow	c) a seed bank
4) natural	d) the loss
5) to prevent	e) for storage
6) remote	f) growth
7) population	g) of extinction
8) under threat	h) habitats

& Task 4. **Read an article about a famous conservation project.**

A. Match the word with its definition.

1) to house	a) to talk to achieve an agreement
2) to advance	b) to come or bring into existence once again
3) extinct	c) to begin
4) diversity	d) to arrange according to class, type, etc

5) to restore
6) to set up
7) to sort
8) to conserve
9) to negotiate
10) to regenerate

e) variety
f) to keep or protect from harm, decay, loss, etc
g) to return to an original or former condition
h) having no living representative
j) to contain or cover in order to protect
k) to go forward in position

B. Read the article and say why the Millennium Seed Bank has been created.

Over the past four hundred years, four hundred and fifty types of plants and trees around the world have become extinct as a result of the combined effects of global warming, population growth, deforestation, flooding and the fact that deserts are advancing in some regions at a rate of nearly four miles a year. Scientists estimate a quarter of the world's remaining 270,000 plant species will be under threat of extinction by 2050.

In 1997, in an attempt to try to prevent the loss of such precious resources, volunteers all over Britain began collecting seeds from Britain's 1,400 species of wild plants, three hundred of which are already facing extinction. The seeds collected are now housed in the Millennium Seed Bank, which opened its doors in 2000. Run by the Royal Botanical Gardens department of the famous Kew Gardens in London, the bank is located in Sussex, about thirty-five miles outside of the capital.

The bank is expected to become the world's biggest seed bank and, apart from preserving almost all the plant life in Britain, it also aims to have saved the seeds of more than 24,000 species of plant life, almost a tenth of the world's flowering plants, in the next twenty years. If they are successful, the Millennium Seed Bank Project will be one of the largest international conservation projects ever undertaken.

In order to achieve this aim, the Millennium Seed Bank has a team of scientists who travel to remote corners of the world to find and collect seeds. They work together with local botanists and also help them to set up their own seed bank by training local scientists. They also spend a great deal of time negotiating with governments to allow them to collect the seeds and bring them back to Britain for storage in the Millennium Seed Bank.

When these seeds arrive at the seed bank, they are sorted, separated by hand from their pods, cleaned and dried and then X-rayed to make sure that they haven't been damaged in any way that might stop them from growing into healthy plants. Finally, they are placed in ordinary glass jars and stored in three underground vaults at temperatures of –20°C. Most plant species have seeds that can be dried, frozen and stored for years and still grow into healthy plants. However, the seeds of some species cannot be dried, so they can't be stored in seed banks in the usual way. These seeds include many rainforest tree species and plants that grow underwater.

Roger Smith, head of the Millennium Seed Bank, explains that scientists at the bank are already working on finding new ways of storing those seeds that cannot survive the drying and freezing process and also on how to regenerate the seeds when they become extinct in their natural habitats.

"At the moment, all we're doing is preserving these plants for the future. We won't have managed to conserve any species until we find the way to successfully regenerate them and grow new plants from them," points out Smith. "But at least this way, when the technology becomes available, and it will, we won't have lost everything."

As well as preserving seeds for the future, the seed bank also receives 2000 requests per year for seeds from universities, governments and conservationist organisations for use in various types of research — for example, to find cures for diseases, to grow food in the developing world and to help in projects that restore the natural habitats of endangered animal species so they can be released back into the wild. Dr Hugh Pritchard, head of research at the Millennium Seed Bank, says: "While it's true that many of the plants we preserve at the bank aren't useful at the moment, that doesn't mean they will not become useful in the future. Something like thirty per cent of the medicines we use today are based on products which have been extracted from plants. So it's easy to see why we need to preserve the diversity of the earth's plant life for the future."

C. Read the text and choose the answer which you think fits best, according to the text.

1. What do scientists believe will happen by 2050?
   a) All plant life will be altered.
   b) 450 types of plants will be in danger of becoming extinct.
   c) Part of the world's plant life will face extinction.
   d) Environmental factors will affect only 450 plant species.

2. Where can the Millennium Seed Bank be found?
   a) Outside Sussex.
   b) Outside London.
   c) In the Royal Botanical Gardens.
   d) In the Kew Gardens.

3. The main aim of the Millennium Seed Bank is to … .
   a) save the seeds of thousands of the world's plants
   b) protect all flowering plants in the world
   c) start a new international project in the next few years
   d) undertake a larger conservation project soon

4. The Millennium Seed Bank carries out its work by … .
   a) training foreign governments to plant seeds
   b) travelling around the world with botanists from other countries
   c) helping other international seed banks
   d) collecting international seeds and returning them to Britain for storage

5. The methods used in storing the seeds show that … .
   a) all seeds can be preserved for many years
   b) some species cannot be stored by regular means
   c) some of the plant species develop into healthy plants
   d) some seeds are damaged when X-rayed

6. The Millennium Seed Bank is trying to … .
   a) reproduce new plants from the seeds
   b) reduce the storage lives of some seeds
   c) destroy the seeds that cannot be frozen
   d) plant the seeds that have a short storage life

7. Why is this project important, according to Dr Pritchard?
   a) It's useful to medical research.
   b) It's useful in technological research.
   c) It helps governments in developing countries.
   d) It helps animal habitats.

D. Make a list of what the Seed Bank does.

E. Discuss the following:

1. Do you believe that the Millennium Seed Bank Project is important? Why (not)?
2. Do you have a responsibility to do something to protect the world's threatened plants?
3. In your opinion, which plants should be protected most of all: trees, bushes or flowers? Why?

Task 5. **Role-play.**

You work for the Millennium Seed Bank and you are preparing a poster to promote the project. Decide what your poster will show.

[2] Task 6. **You will hear part of a radio interview with a man who is the director of an Environmental Centre.**

A. Before listening to the recording, predict the functions performed by the Environmental Centre.

B. Listen to the recording and match the following phrases from it.

1) to provide energy	a) serious water shortages
2) we've considerably expanded	b) for power
3) ways to use the sun and wind	c) for essential things
4) we're open to	d) the public all year round
5) We also run courses	e) our activities
6) from countries where there are	f) for overseas students
7) Our system helps people use their limited supplies	g) for the future

C. Complete the sentences with necessary words according to the recording.

1. The Environmental Centre has been open for _____.
2. The Centre has working displays of sun and wind _____.
3. School children visit the Centre to carry out a _____ on the environment.
4. The majority of courses take _____, apart from ones in the summer.
5. Accommodation is provided in basic _____ made of wood.
6. The Centre does not allow anyone _____ inside.
7. The course on garden wildlife and different plants is called _____ gardening.

8. The most popular course shows people how to save _____.
9. The cost of a course depends on whether people have a _____ or not.
10. The Centre has a _____ to make sure nobody is refused a place on a course.

D. Listen to the recording once again and prove that the following statements are true or false.

1. The interviewer is talking to Jeffrey Osland, who is the director of an Environmental Centre in mid Scotland.
2. Basically the Environmental Centre is interested in protecting the environment.
3. The working displays of the Environmental Centre are open to the public all year round and last year they had over 8000 visitors.
4. Lots of school children, especially senior school children who are doing their homework on some aspect of the environment visit the working displays of the Environmental Centre.
5. The Environmental Centre also runs courses for secondary schools, universities and overseas students and these courses are distance-learning, it is convenient because people shouldn't come and stay for any period of time.
6. The members of the Environmental Centre prefer either vegetarian food, or meat one.
7. Natural Gardening is the most popular course organized by the Environmental Centre.
8. The Environmental Centre courses show people how to save forests, birds and animals.

E. Discuss the following:

1. Do we have anything similar to the Environmental Centre in Belarus?
2. Where do people usually get information about threats to the environments and ways to avoid them in Belarus?
3. Would you like to become a member of the Environmental Centre? Why (not)? What activity project(s) would you like to run?

Task 7. **Role-play.**

Imagine you run an Environmental Centre in our country. What course would you like to offer your citizens? Why? Share your ideas with your groupmates.

Task 8. **Work out your own conservation project. What will it be aimed at?**

U N I T 1 3
TIGERS AND GORILLAS FOR SALE ON-LINE

Task 1. **In each line there is a word which does not go with the others. Underline it.**

1. *Land habitat:* jungle, savannah, mammal, forest, plain, desert.
2. *Water habitat:* sea, seahorse, pool, pond, river, marsh.
3. *Collective nouns:* flock, arctic, herd, pack, school, pride.
4. *Type of eater:* hamster, herbivore, carnivore, omnivore, carrion eater.
5. *What they eat:* grass, leaves, hamburger, meat, carrion, fish, prey.
6. *Climate:* tropical, arctic, temperature, equatorial, moderate.
7. *Animal types:* fish, giraffe, birds, mammals, reptiles, amphibians, insects.

8. *Living space:* environment, habitat, leopard, territory, hunting ground.
9. *Threats:* hunters, poachers, urban expansion, agriculture, vitamins, pollution, habitat loss.
10. *Reason for hunting:* horn, ivory, medicine, pets, trophy, oil, skin, fur, wallet.
11. *Environmental change:* deforestation, desertification, irrigation, drainage, destruction, calendar.
12. *Death:* wipe out, extinction, massacre, under threat, poisoning, disease, tape.
13. *Saving animals:* preservation, taxidermy, repopulation, captive breeding, sanctuaries, parks.

Task 2. **Read the text and decide which alternative (A, B, C or D) best fits each space.**

THE THREAT TO THE ENVIRONMENT

Nowadays people are more aware that wildlife all over the world is in (1) _____. Many (2) _____ of animals are threatened, and could easily become (3) _____ if we do not make an effort to (4) _____ them. There are many reasons for this. In some cases, animals are (5) _____ for their fur or for other valuable parts of their bodies. Some birds, (6) _____ as parrots, are caught (7) _____, and sold as pets. For many animals and birds, the problem is that their habitat — the (8) _____ where they live — is (9) _____. More (10) _____ is used for farms, for houses or industry, and there are fewer open (11) _____ than there once were. Farmers use powerful chemicals to help them grow better (12) _____ but these chemicals pollute the environment and (13) _____ wildlife. The most successful animals on earth — human beings — will soon be the only ones (14) _____, unless we can (15) _____ this problem.

Word	Variant			
	A	B	C	D
1	danger	threat	problem	vanishing
2	marks	more	species	forms
3	disappeared	vanished	empty	extinct
4	harm	safe	protect	serve
5	hunted	chased	game	extinct
6	like	such	or	where
7	lively	alive	for life	for living
8	spot	point	place	site
9	exhausting	departing	escaping	disappearing
10	earth	land	soil	area
11	spaces	air	up	parts
12	products	fields	herbs	crops
13	spoil	harm	wound	wrong
14	survived	over	missing	left
15	answer	calculate	solve	explain

Task 3. **Fill in the gaps using the words given below.**

Words for inquiries: endangered species, primate, adolescent, anonymous, predominantly, taxidermy, unperturbed, unaware.

1. The practice of preserving dead animals by filling their skins with material so they look as if they are still alive is called _____.
2. An _____ animal is one which has not yet become a fully grown adult.

3. If you are _____ about something, you are not worried about it at all.
4. If you are _____ of something, you don't realize that it exists or is happening.
5. _____ is another word for 'mainly' or 'mostly'.
6. An _____ is a type of animal that may soon become extinct.
7. If someone is _____, no-one knows their name.
8. Any animal, including monkeys and apes, which belongs to the same group as humans is known as a _____.

Task 4. **Group the wildlife words given below depending on their type. Write them down in the gaps.**

Words for inquiries: tiger, giraffe, gorilla, parrot, falcon, green turtle, seahorse, antelope, turtle, polar bear.

Mammals _____
Birds _____
Fish _____
Reptiles _____

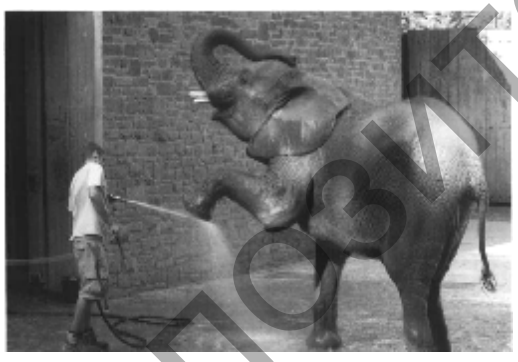
& Task 5. **Read a text about trading of endangered animals.**

A. Be sure that you know all the highlighted words.

B. Read the text and define the main problem discussed in it.

TIGERS AND GORILLAS FOR SALE ONLINE

Thousands of **endangered animals** supposedly protected by law are **being traded openly** on the internet and sold as "exotic pets", say **wildlife crime investigators** working with an international **animal charity**.



An investigation of nearly 100 websites based around the world found a "shocking" selection of **rare** and endangered animals for sale. They included a **hand-reared Siberian tiger** ($70,000), an **adolescent** gorilla ($8,100) advertised as being in London, and other rare primates, falcons, seahorses and whole shells of turtles. One of the most expensive was a "sweet-natured" two-year-old giraffe being sold for $15,500 in the US. "He has never been bad-tempered with me. A loving home is a must," said the anonymous owner. The internet has revolutionised shopping for books, DVDs and airline tickets, but it has also opened up great opportunities to deal in **illegal wildlife** which, according to the United Nations, is worth billions of dollars a year and now rivals the arms and drug trades in scale. "Within one week we found over 9,000 wild animalproducts and **specimens**, and wild animals for sale, predominantly from **species** protected by law," says the report for the International Fund for Animal Welfare (IFAW). "More than 100 traders were identified, each advertising an unnamed, unspecified number of items," said the authors of the report.

The range of live endangered animals for sale could have set up whole zoos, and the parts of dead animals found on the web would have stocked streets of Chinese pharmacies. "They included some of the world's most endangered species," the report

says. "There were live Amazonian parrots, wild cats, a green turtle which the seller claimed was captured from a Southeast Asian rainforest; even a live pet lion." A total of 146 live primates were found in a week, some being advertised before they were even born. Commercial trade in any primate species is either prohibited or subject to strict controls. The gorilla for sale in London might not have actually existed, said an IFAW spokeswoman on Monday. "Possibly it was a Congo-based operation which would capture an animal to order." Guaranteed to be real, however, were the hawksbill turtle shells, shahtoosh shawls from the Tibetan antelope and taxidermy specimens of lions and peregrine falcons — the last a protected British species — which were all found, along with a stuffed polar bear that was billed as being Victorian but looked **suspiciously fresh.**

Although thousands of species are in **steep decline** worldwide, quantity does not appear to be a problem for the sellers, who IFAW found ranged from individuals hoping to make money on a one-off exotic pet to professional traders who appeared to have access to a regular supply.

Neither did the fact that it is illegal to trade in the species worry the sellers. Many seemed unperturbed or unaware of the law.

From "The Guardian Weekly"

C. Choose the answer which you think fits best, according to the text.

1. How has the internet affected the trade in endangered animals?
   a) It has enabled whole zoos to be set up.
   b) It has opened up great opportunities to dealers in illegal wildlife.
   c) It has introduced strict controls on advertising endangered animals for sale.

2. What was strange about the gorilla advertised as being in London?
   a) It was comparatively cheap.
   b) It probably came from the Congo.
   c) It probably didn't exist.

3. What types of creatures are mentioned in the text?
   a) Mammals and birds.
   b) Mammals, birds and fish.
   c) Mammals, birds, fish and reptiles.

4. What items are advertised for sale on the internet?
   a) Live animals, parts of dead animals and stuffed animals.
   b) An unnamed, unspecified number of items.
   c) One-off exotic pets.

D. Decide if the following statements are true or false.

1. Trading in exotic animals is legal.
2. Trading in exotic animals is worth billions of dollars a year.
3. It is possible to buy a gorilla on the internet.
4. It costs around $700,000 to buy a Siberian tiger.
5. Parts of dead animals are also advertised on the internet.
6. Most exotic animals are sold to taxidermists.

E. Find in the text the word or word combination:

1. _____ which means the opposite of ‘common’.
2. _____ which is the opposite of ‘bad-tempered’.
3. _____ which means the same as ‘illegal’ or ‘not permitted’.
4. _____ which is the opposite of ‘domestic’.
5. _____ which is the opposite of ‘specific’.
6. _____ which means ‘as some people believe or say’.
7. _____ which means ‘in a way that makes you think there is something wrong’.
8. _____ which means ‘falling in number rapidly’.

F. In pairs, talk about to what extent you agree with these opinions on trading in animals and animal products.

1. Trading in animals is no different from farming and killing animals.
2. There is little difference between using leather from cows and snake skin.
3. Traditional Chinese medicine should be exempt from international regulations.
4. Big profits and the commercial demand for animals will ensure their survival.
5. People caught selling endangered species should get 30 years in prison.
6. People will never stop buying fur coats or ivory bracelets.
7. The best answer is to breed the animals and legalize the sale of their products.
8. A tiger skin coat looks absolutely beautiful.

G. Discuss the following:

1. Should people be allowed to keep exotic animals as pets?
2. Should poachers and traders in exotic species receive life sentences in prison? Or should they receive heavy fines?
3. Should leather and fur products be banned? Is it a way out to save our lesser brothers?
4. What should the world do to stop the trade in endangered animals?
5. What animal would you most likely protect and why?

[2] Task 6. **You will hear part of a radio talk about endangered species.**

A. Before listening to the recording, try to explain the meaning of the following phenomena.

Endangered animal, endangered species, animal rights activist, environmental agencies, cutting down trees, animal’s natural habitat.

B. Match the words on the left with their synonyms on the right.

1) extinct	a) contamination
2) famous	b) to demolish

3) activist
4) serious
5) different
6) countless
7) pollution
8) to suffer
9) cutting down trees
10) to destroy
11) polluted
12) banned

c) dirty
d) deforestation
e) militant
f) various
g) prohibited
h) defunct
j) earnest
k) numberless
l) to writhe
m) famed

C. Listen to the recording and underline the names of animals that you have heard on the recording.

1. Elephant.
2. Panda.
3. Bison.
4. Tiger.
5. Turtle.
6. Bear.
7. Leopard.
8. Crocodile.
9. Zebra.

D. Listen to the recording again and fill in the gaps with suitable prepositions where necessary.

1. Thanks _____ joining us today.
2. Working _____several different environmental agencies.
3. To increase people's awareness _____how serious the problem is.
4. Animals are _____danger.
5. To focus only _____the exotic animals.
6. Breathe _____the air.
7. There is nowhere _____them to live.
8. Keep an.
9. Eye _____what is happening.

E. Complete the notes which summarise what the speaker says.

1. John Mckenzie is an _____ activist.
2. John is working to raise _____ about the problem of our endangered species.
3. We are wiping out the _____ of many animals.
4. We need to be more careful about the _____ we buy.
5. If we look after the _____ more animas will survive.
6. We should report people who _____ and _____ to the police.

F. Discuss the following:

1. Is the problem of endangered animals growing? If yes, why?
2. The speaker says that in fact, there are very few animals on our planet which are not in danger. Why has he come to such a conclusion?

3. How can we protect animals?
4. What have you personally done to help protect animals?

Task 7. **Role-play.**
Act out a session in the court. A trader in exotic species is to be sentenced to imprisonment. Roles: the judge, a claimant, an accused, accomplices, a solicitor, a public prosecutor, witnesses in favour of a claimant, witnesses in favour of an accused, and so on. Prepare your arguments and be ready to act out your role.

U N I T 1 4
WHAT A WASTE!

Task 1. **Use the words in capitals to form a word that fits in the space in the same line.**

(1) _____ groups have been saying for years that the earth's ecosystems need (2) _____, but not enough is being done. Although public (3) _____ of the problem has increased, the (4) _____ of our air, land and water continues.	ENVIRONMENT PROTECT AWARE CONTAMINATE
(5) _____ who study the way pollution is changing our world now realise that animals are threatened with (6) _____ as a result not only of pollution, but (7) _____ and other forms of habitat destruction as well. However, steps are being taken to ensure the (8) _____ of the earth's wildlife.	ECOLOGY EXTINCT DEFOREST SURVIVE
Furthermore, because much of the rubbish we throw away is (9) _____ we should use the special bins provided for used glass, paper and plastic. It may seem a bit of an inconvenience, but it's worth it. We must try to limit the (10) _____ effects of our wealthy, "throw-away" society on the fragile environment. With a little (11) _____ it is hoped that people will begin to do their part to save the earth.	RECYCLE HARM ENCOURAGE

Task 2. **Join the words to make meaningful word combinations. To check your answers, consult the text "What a waste!"**

1) plastic	a) banks
2) checkout	b) bags
3) no-phosphate	c) urge
4) toilet	d) dam
5) irresistible	e) cleansers
6) bottle	f) sack
7) cloth	g) counter

& Task 3. **Read the following text about the problem of waste recycling.**

A. Match these English words and word combinations with the corresponding Russian equivalents.

1) to cut pollution	a) отшутиться
2) whole-heartedly	b) уменьшить загрязнение
3) to opt for smth	c) безоговорочно
4) cleanser	d) праздничный
5) to provoke marital spats	e) очиститель

6) to bicker in earnest
7) to take a stab
8) to go along
9) to laugh off
10) festive

f) попытаться сделать что-либо
g) предпочитать
h) вызывать семейные ссоры
j) всерьез спорить
k) соглашаться с идеей

B. Decide what the term "throw-away society" means. Is this concept appropriate for reflecting the actual state of affairs? Why (not)?

WHAT A WASTE!

Like most good ideas at our house, this one came from my wife, Darlene. From now on, she announced not long ago, we are going to live environmentally responsible lives. I went along whole-heartedly. It so happened I'd been planning to become a better person for some time.

We began by shopping more responsibly. We passed up plastic bags in the produce section and dropped our vegetables into cart naked. We opted for paper bags at the checkout counter or brought our own cloth sack. We got stared at, but you have to rise above that sort of thing.

Living ecologically provoked minor marital spats, but Darlene and I didn't bicker in earnest until Christmas approached. She'd consulted the Save Our Planet "Holiday List" and found some novel gift: a set of no-phosphate cleansers for son Dale; compact fluorescent light bulbs (they last longer and use less power) for daughter Amy; a toilet dam (saves water) for my brother. "Your parents might like unbleached coffee filters", she suggested.

Somehow, I said, those things didn't seem very festive. That did it. "You never had any intention of going along with this", she stuttered, "I can't handle the pressure!" I protested. "Grow up," she demanded. I agreed to take another stab at it — then my subconscious got involved. I dreamed I was at this place that looked like an environmental workout centre. It was filled with people I knew, doing strange and uplifting things. My friend Julie was knitting old sweaters so she could reuse the yarn. Leon had his exercise bike hooked to a gristmill so he could grind his own flour.

At this point, I began to get giddy. Darlene laughed it off when I said we'd save water if I showered with the divorcee down the street, but when I proposed commuting to work by balloon, she realized I had veered into mockery. "It's the ecological responsible way of travel", I explained.

As she glared at me, I decided to confess. "I can't pull it off," I said. "Do-goodism makes me squirm. Sometimes I have this irresistible urge to run out for a Super Burger and then throw all the packaging out the window."

I think she gave up on me after that. I do worry about my inability to sustain virtuous behaviour, though. So I'm working on a book called *116 Fun Little Ways to Help Mother-Nature If You're Not Up to Making Big Sacrifices Right Now.* I'm even writing it on toilet tissue made from recycled paper. And using both sides.

THE THROW-AWAY SOCIETY

Data-File

- The average person in Los Angeles throws away 7 kilos of rubbish every day.
- The average person in the Third World throws away only 1 kilo of rubbish every day.
- Britain throws away 7 million tonnes of paper every year. That's the same as 80 million trees.
- One year a European family with two children throws away:
  50 kilos of paper (that's 6 trees);
  60 kilos of metal;
  45 kilos of plastic.
- In one year the average person throws away 71 food cans. 34 cans of pet food and 68 drinks cans.

Britain produces 8.5 billion cans per year. Half are for food and half for drinks. That's enough to go to the moon and back and halfway to the moon again.

– England and Wales produce 5000 tons of rubbish every year. This costs $600 million to collect and bury.

Packaging

Almost all supermarket food today comes in plastic containers. Some of this packaging is necessary. It keeps the food clean and fresh. It also makes it last longer. But some packaging isn't necessary at all. It's just there to make the food look better.

Did you know...?

– In Britain, over 75000 people work in packaging factories.

– The UK packaging industry sells 4 billion pound of plastic containers every year.

– 28% of domestic rubbish is packaging.

– 5% of all Britain's energy goes into making packaging.

THE GREEN ANSWERS

Here are three ways to beat the throw-away society. All of them are cleaner and cheaper than burying rubbish.

1. *Throw away less rubbish.*

In Denmark, it's illegal to sell drinks in cans. And it's not just governments which can produce less rubbish. It's ordinary people, too. Anyone can decide to buy products with as little packaging as possible; use and throw away fewer carrier bags; waste less paper.

2. *Turn rubbish into energy.*

How? By burning it. This is a good idea because it...saves fossil fuels and cuts pollution. At the moment most countries only turn between 5% and 10 % of their rubbish into energy.

3. *Use rubbish again.*

A lot of what we throw away is still useful. It's possible to recycle 80% cosmetic rubbish. This includes most kinds of paper, glass, metal and plastic. But there's a problem. Recycling is expensive. That's why we only recycle about 15% of glass, 20% of plastic, 30% of paper. But it's

getting easier and cheaper to recycle all the time. One reason for this is the growing number of recycling centres, bottle banks. Also some countries now have recycling laws. These mean that supermarkets pay customers to return tins and bottles. Recycling saves trees, saves energy, saves money, cuts pollution.

C. Study the Fact-file and mark the following statements as true or false.

1. The eco-problem of waste disposal is a great deal more acute in the Third World countries than in the USA.
2. The British are very conscious about the environment and hardly ever throw-away any paper at all.
3. An average European family throws away twice as much plastic as paper and no metal.
4. In the UK people buy canned drinks not nearly as often as canned food for pets.
5. Packaging is necessary to keep food fresh and clean, but it cannot make it last longer.
6. Almost one third of domestic rubbish is packaging.
7. Making packaging saves a lot of energy and, as a result, costs almost nothing.

D. Insert prepositions where necessary.

1. We opted _____ paper bags _____ the checkout counter.
2. I went _____ whole-heartedly.
3. We passed _____ plastic bags in the produce section and dropped our vegetables _____ cart naked.
4. I think she gave _____ _____ me after that.
5. We didn't bicker _____ earnest until Christmas approached.
6. We got stared _____, but you have to rise _____ that sort of thing.
7. She'd consulted _____ the Save Our Planet "Holiday List".

E. Discuss the following:

1. How much rubbish do you and your family produce each week? What can you do to reduce it?
2. How do you dispose of your domestic rubbish?
3. What is the method of waste disposal employed in your neighbourhood? Do you approve of it?
4. Reread the text about the three ways to "beat the throw-away society". Decide on the one, which seems the most beneficial and effective of them all. Give your reasons in favour of the chosen method and against the remaining two.
5. Putting rubbish on a rubbish tip is not the only solution to the rubbish problem. What are the advantages and disadvantages of dumping rubbish at sea, burning it or sending it into space?
6. Would you like to be a dustman / woman? Why (not)? What are the pluses and minuses of the job?

[2] Task 4. **You will hear five people talking about recycling ideas.**

A. Before listening to the recording, try to explain the meaning of the following words and word combinations.

Recycling, recycling programme, rubbish dump, landfill site.

B. Listen to the recording and match the speakers to the sentences. There is one extra sentence which does not match any of the speakers.

1) This will save lives.	a) Speaker 1
2) Teaching the public about recycling.	b) Speaker 2
3) Providing work and helping the environment.	c) Speaker 3
4) Things can be used more than once.	d) Speaker 4
5) Reasons why we should all recycle.	e) Speaker 5
6) This helps cut down energy use	

C. Listen to the recording once again and say whether the following statements are true or false.

1. The recycling programmes of the aluminum can began in 1978.
2. Recycling aluminum helps the environment in twenty ways.
3. Last weekend thousands of people showed up at Centre City zoo.
4. In an effort to help the environment, the zoo offered 70% off the cost of admission to anyone who threw a clean, empty plastic bottle in the dustbins of the zoo.
5. In September when children get ready to head back to school they shouldn't reuse whatever they have from last year.
6. A UK based charity has found a way to use cardboard recycling to help adults.
7. The scheme involves a shop called "Scrap for sail".
8. The next time you use your phone card to call a friend or make dinner reservations, you could be helping to feed a starving child in China.
9. Save your old phone cards and recycle them.

D. Answer the questions.

1. What is the most successful recycling programme today?
2. How does recycling aluminum help the environment?
3. What is "plastic recycling day"?
4. How can children contribute to recycling?

E. Discuss the following:

1. Is the problem of recycling vital now? Why?
2. Is it necessary to inform people about all the products which are available for recycling?
3. Can a plastic recycling demonstration bring any good to the environment? Have you ever taken part in any plastic recycling demonstration?
4. What are you ready to recycle in order to save the environment?

Task 5. **Hold a poll among your family (friends), fellow-students, etc. in order to collect some data on the possible solutions to the waste disposal problem in the country.**

Task 6. **Organize debates "Recycling: a benefit or a waste of time?" Divide into two groups and prepare arguments to prove your points of view.**
When you have prepared your arguments, use some of the language below to put together a speech for the debate.

Expressing opinion

We firmly believe that…
We are of the opinion that…
If you ask me...
I didn't quite follow what you mean, I'm afraid.
As I see it...
As far as I'm concerned…
It seems to me…
Wouldn't you say that...
My own view of the matter is…
I'd like to point out that...
Do you think it's right to say that...?
I don't quite see what you mean, I'm afraid.

Expressing agreement

Yes, I agree entirely here.
I fully/entirely/absolutely/completely agree.
I couldn't agree more.
I am of the same opinion.
You know, that's exactly what I think.
It stands to reason.
That's quite right.
It really looks like that.
Yes, that's true.
I won't deny that.
Exactly.
That's my way of looking at it too.
What you say is perfectly true.
It goes without saying that...

Expressing disagreement

There may be something in what you say but...
I see your point but...
You don't seem to realize that…
I wouldn't say that exactly.
It might be right but...
That's totally unfounded.
You can't be serious.
Not in the least!
Nothing of the kind!
Just the other way round!
I disagree with you on that point.
I shouldn't say so.
I've got some reasons to disagree.
I've got an argument to oppose.

U N I T 1 5

ANTARCTICA

Task 1. **Read the text and decide which alternative (A, B, C or D) best fits each space.**

ANTARCTICA

For those who really want to get away from it (1) _____, a new holiday destination has sprung up — Antarctica. However, this new hotspot, or freezing zone, might only be for those with the deepest pockets if a new policy gets (2) _____ way. Tourism on Antarctica has been increasing (3) _____ in the past twenty years, from a few thousand people in 1985 to more than 40,000 in 2007. The growing numbers are having a negative effect on the pristine environment of the South Pole. To combat this, researchers from Holland's Maastricht University have come (4) _____ with a possible solution: limit the number of tourists allowed to visit and auction the vacations to the highest bidders.

Many environmental protection agencies agree that there is a (5) _____ to protect the frozen wilderness from the damage created by modern tourism. Antarctica is the last unspoiled place on Earth. It has a very delicate ecosystem that could be (6) _____ upset by hordes of tourists landing in airplanes and using skimobiles. A difficulty (7) _____ because Antarctica is not a country and therefore has no government to (8) _____ laws or guidelines to control the number of visitors. The Maastricht University team's proposal to auction off a fixed number of tourist places seems a workable solution. It would limit the number of visitors and therefore (9) _____ the amount of environmental damage, and the money would be used to protect Antarctica's future.

Word	**Variant**			
	A	**B**	**C**	**D**
1	everything	all	whole	all of it
2	under	above	over	beneath
3	dramatic	drama	dramatically	dramas
4	down	over	above	up
5	necessary	need	needy	needless
6	easily	easy	ease	uneasy
7	exits	exists	exiles	existing
8	past	passed	pass	passing
9	contain	continue	count	contact

Task 2. **Match the words on the left to the words on the right to make logical and meaningful collocations.**

1) all year
2) come
3) crucial
4) ozone
5) ultimate
6) strictly
7) marine
8) major
9) sea
10) drive

a) limited
b) pollution
c) level
d) measures
e) challenge
f) role
g) issues
h) impact
j) layer
k) to extinction

11) severe
12) environmental

l) round
m) to realise

& Task 3. **Read a newspaper article about the Antarctic**.

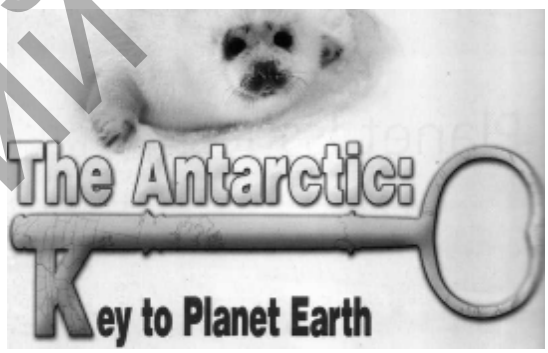
A. Match the words and word combinations on the left with their synonyms on the right.

1) fossil
2) to evolve
3) crucial
4) to cause harm to
5) to contribute to smth.
6) to beat
7) sort
8) to hold the key to smth.

a) one of the causes of
b) has all the answers regarding
c) kind
d) were ahead of
e) damage
f) the highest, most significant
g) to undergo evolution
h) a relic, remnant

B. Who do you think may be living in Antarctica? What might they be doing there?

C. Read the text and find out why preserving the Antarctic is so essential.



The first people to reach the South Pole — in modern times, anyway — were Roald Amundsen and the Norwegian Antarctic expedition, in December 1911. (1) _____. Explorers had been trying to reach the Antarctic for over a hundred years because it represented the ultimate challenge: the coldest and windiest continent in the world.

Nowadays, scientists from over 27 countries work in the Antarctic all year round and there is even a small amount of tourism in the summer months. The Antarctic still represents a challenge, but a challenge of a different sort. Since the 1960s, people have come to realise that the Antarctic holds the key to the history of our plane: past, present and future.

Antarctica has preserved valuable evidence of the natural history of our planet. Evidence from fossils shows how life evolved during geological time. The Antarctic has a crucial role to play in helping us understand global change. Analysing sediment from its different lakes makes it possible to collect information on climate change over the last 10,000 years. (2) _____. The 4 km thick ice sheet is a frozen record of the last 500,000 years. Bubbles in the ice contain atmospheric gases. Frozen into the ice is evidence of levels of global pollution by industry, agriculture and atomic bombs.

The Antarctic provides valuable information about what is currently happening to the ozone layer and about global warming. Scientists are also discovering that the ice sheet may contribute to changes in sea level. What happens in Antarctica affects the world's climate and the world's oceans. (3) _____.

Up until the 1960s, some species of whale and seal were driven almost to extinction by human activities in Antarctica. However, due to greater environmental awareness, all plants and animals in Antarctica are now protected by regulation. There is a special regulation to protect the six species of seal which breed in the Antarctic.

Fishing in the Antarctic regions is also strictly controlled. The control is based on the "ecosystem approach". (4) _____. Commercial fishing is strictly limited and severe measures aim to minimise illegal fishing.

At the moment, there is international concern over environmental impact of fishing in the seas of the Antarctic. (5) _____.

There are also strict measures to control marine pollution. It is illegal to dump into the sea any kind of toxic chemicals, oil, plastics, rubbish or sewage. (6) _____.

Antarctica provides information on the past, present and future of our planet, and controls major issues in the rest of the world, like sea level. In this sense it is a warning because it tells us what we have done wrong as regards the ozone layer and global warming, for instance. (7) _____. It is up to us to listen and act, before it is too late.

D. Choose the most suitable sentence from the list to fill in the gaps in each part of the article. There is one extra sentence which you do not need to use.

1. It is also illegal to leave anything like this on land (or ice) in Antarctica, so all waste must be taken away on board ship and disposed of elsewhere.
2. This is why the Antarctic is now one of the most controlled regions of the world, in terms of regulations concerning pollution.
3. These may include playing football, skiing for recreation and diving beneath the sea.
4. It is also possible that future studies of a lake covered by 3.7 km of ice might reveal bacteria over half a million years old.
5. An example of this is what is called "marine litter" which includes hooks and nets left in the ocean and which can cause harm to fish, birds and seals.
6. It is also a lesson because the regulations in force there show us what can be done for the environment, and what must be done for the environment.
7. They beat the British by one month.
8. This is an approach which takes account of the whole of the food chain which means that it assesses the numbers of seals and seabirds as well as fish, squid and krill (a creature like a shrimp).

E. Look at the numbers. Find out what they refer to in the text.

1. 500,000.
2. 1911.
3. 1960s.
4. 27.
5. 10,000.
6. 4.
7. 3.7.

F. Read the article again and list the reasons why the Antarctic is the key to Planet Earth.

G. Discuss the following:

1. What does Antarctica mean to the world?
2. Why is it an international continent? Give your arguments.

3. Can we say that Antarctica's ecosystem will survive? What can help preserve it?
4. Are there any pristine parts in Belarus? Have you visited them?

Task 4. **Role-play.**
Imagine you are a scientist working in Antarctica. Describe a typical day in your life there.

Task 5. **Assure your groupmates that the Antarctic has a crucial role to play in helping us understand global change.**

[2] Task 6. **You will hear part of a radio interview with a woman called Hayley Jones who spent a year in Antarctica.**

A. Before listening to the recording recollect all the facts that you know about Antarctica.

B. Listen to the recording and choose the best answer for the questions.

1. Why did Hayley go to Antarctica?
   a) to join the other scientists there
   b) to do research into waste material
   c) to study in the laboratory there

2. What did Hayley find depressing?
   a) not being able to listen to the radio
   b) the environment being one colour
   c) being without her family for so long

3. While in Antarctica, Hayley had not expected to … .
   a) feel so tired
   b) work so hard
   c) sleep so little

4. What did Hayley find different about Rothera?
   a) She could go skiing at any time of day.
   b) She could walk alone without worrying.
   c) She could sit in on music rehearsals.

5. In order to keep warm, Hayley says she wore … .
   a) lots of thick clothes
   b) her skiing clothes
   c) lightweight clothes

6. Hayley thinks that in the future Antarctica … .
   a) is unlikely to see many more tourists
   b) may be less expensive for tourists
   c) will become fashionable for tourists

7. How does Hayley feel about her year in Antarctica?
   a) She found it a very worthwhile time.
   b) She thinks she learnt a great deal.
   c) She didn't like living so far away

C. Listen to the recording once again and say whether the following statements are true or false.

1. Hayley Jones job was to produce a report every month of the year.
2. The main thing Hayley Jones had to do was to look at cutting down trees.
3. Most of the scientists in Antarctica are working in Mothera.
4. Antarctica is like a laboratory for the world as all the research being done there will benefit us all wherever we live.
5. Hayley Jones found it really boring to spend a year in Antarctica.
6. Some days when the weather was calm it was only about minus 5, but if the wind picked up it could drop to minus 40 in a matter of minutes.
7. Getting to Antarctica is easy for anyone.

D. Discuss the following:

1. Why is Antarctica compared with a laboratory?
2. Describe the nature of Antarctica. What are its peculiarities?
3. Would you like to visit Antarctica? Why (not)?
4. What environmental problems are you interested in? Why? Where would you like to go to study them?

Task 7. **Role-play.**

Imagine you are Roald Amundsen. Write two short diary entries — one about the first day you reached the South Pole and another while you explore the Antarctic.

U N I T 1 6
CHERNOBYL'S DEADLY LEGACY

Task 1. **Do the following task.**

A. Match the given words to their definitions.

1) sustainable	a) a form of energy that replaces itself naturally, or is easily replaced because there is a large supply of it
2) biodiversity	b) the part of the world in which animals, plants, etc. can live
3) renewable energy	c) the variety of plants and animals in a particular place
4) hydroelectric	d) able to continue without causing damage to the environment
5) environmentally friendly	e) relating to the sun
6) tidal	f) using water power to produce energy
7) biosphere	g) relating to the regular rising and falling of the sea level on the shore
8) solar	h) used about products and methods that do not damage the environment

B. Complete the text with expressions from A.

A (1) _____ is any naturally occurring energy source that we can tap into without depleting the world's finite resources, without contributing to the greenhouse effect, and often without causing any pollution. Renewable energies are therefore (2) _____, and the effect they have on the (3) _____ is considerably less than with fossil fuels.

Some forms of renewable energy, such as (4) _____ power in countries with high rainfall, are already well established. (5) _____ power is cost efficient in dry, sunny countries, as is wind power in exposed places. (6) _____ energy has not yet been effectively harnessed, as it requires huge off-shore construction. All these energy forms are (7) _____, as they have low emissions and result in very little damage to a region's (8) _____.

Task 2. **Translate from Russian into English.**

1. Загрязнение окружающей среды стало сегодня одной из самых острых проблем, стоящих перед человечеством.
2. Человек загрязняет воздух ядовитыми газами, отравляет воды промышленными отходами, вырубает тропические леса, губит растения и животных, не осознавая, что наносит непоправимый ущерб самому себе.
3. Глобальное потепление — это результат так называемого тепличного эффекта, частично вызванного сжиганием ископаемого топлива — угля, нефти и газа.
4. В течение последних лет в Британии активно разрабатываются технологии, направленные на использование альтернативных источников энергии, чтобы изыскать пути к уменьшению зависимости мира от ископаемого топлива.
5. Еще много лет нам придется сталкиваться с последствиями аварии на ЧАЭС.
6. Правительства некоторых стран предпринимают ряд мер по ежедневному контролю над уровнем загрязнения окружающей среды.
7. Оксид углерода, выделяемый выхлопными системами автомобилей, является главным виновником климатических изменений.
8. В настоящее время созданы организации, которые разрабатывают программы по предотвращению экологических катастроф.

& Task 3. **Read the text about the Chernobyl catastrophe and its consequences.**

A. What do you think was the main reason for building the Chernobyl nuclear power station?

B. Read the text and say what the worst consequences of the Chernobyl nuclear accident are.

CHERNOBYL'S DEADLY LEGACY

The world's worst nuclear accident happened at Chernobyl in northern Ukraine. Despite the very strict systems of checks and safety measures employed at nuclear power plants, the explosion at Chernobyl in April 1986 was devastating proof of the old maxim that "accidents can happen". Chernobyl was not the first accident at a nuclear power plant. Serious accidental releases of radioactivity occurred at Chalk River Ontario, Canada in 1952, Windscale (now Sellafield), UK in 1957, and Three Mile Island in Pennsylvania, USA in 1979. But these events were overshadowed by the accident at the Chernobyl nuclear power station in the Ukraine, which was then part of the Soviet Union. It was the most serious accident to have occurred at a nuclear power plant, and an event which has haunted the world's nuclear industry since.

The plant was supposed to close permanently at the end of 1993 — a date agreed between the Group of Seven (G7) leading industrialised countries and the Ukrainian government. But, in October of that year, closure plans were called off after officials in Kiev decided the country could not function without a supply of electricity from Chernobyl. Many believe this was inevitable since G7 offered no financial help towards the closure.

Although all four of the reactors have now been closed down (the final date for shutting them down agreed with the European Union and the US turned out to be the year 2000) it is by no means the end of the matter.

Although all four of the nuclear reactors at Chernobyl have now been closed down, it is by no means the end of the matter. Full decommissioning of the station is expected to take up to 50 years. Meanwhile, scientists will continue to monitor the accident's legacy for human and ecological health for many decades to come.

The accident

In the early hours of the morning on the 26th of April 1986, operators at the nuclear reactor complex about 130 km north of Kiev lost control of the Chernobyl Unit 4 nuclear reactor while conducting some experiments. The Chernobyl reactors were not originally designed for civilian use. Known as RBMK-1000s their design was based on a military reactor, built to produce materials or nuclear weapons. Moreover, the RBMK-1000 had a design flaw which makes it unstable unless it is operating at full power. The Chernobyl reactors also did not conform to international safety standards: all safety mechanisms could be switched off manually (that is what had happened just before the catastrophe) and there was no protective structure around the reactors to limit the effects of the accident.

These design and operation failures caused the explosions. The reactor core erupted in a gigantic explosion, injecting huge amounts of heat and disintegrated radioactive fuel into the atmosphere. One worker who was on duty in the hall just above the reactor died instantly in the explosion. He was the only immediate victim of the blast, but the first in a death toll that is now in the thousands. Some 3.5 million other people, over a third of them children, are thought to have suffered illnesses as a result of contamination from the deadly cloud of radioactivity.

Many of the horrors of the aftermath could, however, have been avoided, or at least reduced, if the situation had been dealt with openly and properly. The authorities of the Soviet Union were slow to tell neighbouring countries of the disaster, due both to the atmosphere of secrecy that characterised the country and to uncertainties over the true scale of possible effects. The two explosions took place at 1.23 a.m. on 26 April. Moscow issued a statement that evening well over twelve hours later, saying that the measures were being taken to deal with the accident. In reality, little was being done. An atomic fire burned at Chernobyl for days before Swedish authorities alerted the world to the nuclear fallout that had been injected high into the atmosphere.

Radioactive contamination from the explosion was greatest in the northern Ukraine, neighbouring southern Belarus and in the parts of the Russian Federation that are close to the Belarussian/Ukrainian borders. But Chernobyl radionuclides were also dispersed throughout the northern hemisphere in small amounts, with particular "hotspots" in areas where rainfall washed radioactive material from clouds: parts of Austria, Bulgaria, Finland, Germany, Norway, Romania, Sweden, Switzerland, the UK and Yugoslavia.

Most concern has focused on the medical dangers to humans from the deposition of radionuclides. Fruit and vegetables from fields near the plant were destroyed, as was milk from cows grazing on nearby contaminated grassland. Initial fears focused on iodine-131 but this breaks down quickly. The time taken for half its atoms to decay, its half-life, is just 8 days. Attention soon shifted to caesium-134 and caesium-137, the latter with a half-life of 30 years. Caesium accumulates up the food chain from the soil through vegetation to contaminate meat. Special measures were required as far from the accident as Scandinavia and Britain to restrict the movement and sale for consumption of livestock. Other dangerous radionuclides involved include strontium-90 (half-life 29 years) and plutonium-239 (half-life 24,000 years).

Lingering effects

Restrictions on food are still in place in some areas up to 3,000 km from Chernobyl, because radioactive caesium from the accident is lingering in the environment much longer than scientists had anticipated. A survey last year found unexpectedly high levels of radioactivity in Western Europe which will last for 50 more years, 100 times longer than expected. The high levels of radioactive caesium were found in fish in lakes in Cumbria (northern England), and in Norway.

During the first 5 years after Chernobyl, the concentrations of radioactive caesium measured in most foods and in water declined by ten times, but in the last few years they have changed very little.

Although the health risk to consumers is thought to be small, restrictions on foodstuffs from parts of Europe and the former Soviet Union will need to be maintained for at least another 10—15 years. Even in Britain, 389 farms still have restrictions on the sale and slaughter of sheep which will have to continue until 30 years after the accident. In more contaminated parts of the Ukraine and Belarus, bans will need to continue for longer. Restrictions on the human consumption of forest berries, fungi and fish, which contribute significantly to people's radiation exposure, will have to continue for at least a further 50 years.

Other long-term effects of the Chernobyl accident are evident in people who lived around the power plant at the time of the explosion. Of the 400,000 workers who cleaned up after the blast, an estimated 30,000 have fallen ill, many sexual or reproductive disorders. And, in the Ukraine alone, about 13,000 children are thought to have inhaled or taken with food enough of iodine 131, to risk contracting thyroid cancer. Today, rates of thyroid cancer in children have increased tenfold since the accident. In the first ten years after the accident, well over 500 cases of thyroid cancer were reported in Belarussian children. Another disease, which has become known as "Chernobyl AIDS" because it somehow depletes the killer cells of the immune system, is also a great concern. People suffering from this condition are much more susceptible to leukemia and malignant tumours, as well as heart problems and a variety of more common infections.

Environmental effects

Despite these terrible consequences, there do appear to be some aspects of the environment that have actually benefited from such a devastating human-induced catastrophe. Although local wildlife suffered from the severe irradiation immediately following the accident, when small areas of ghostly "red forest" appeared as dead pine leaves turned a rusty brown colour, the long-term impacts so far seem to be beneficial, mainly thanks to the forced depopulation of farms and villages. All inhabitants from an area of 2,800 km sq. around the power station, consisting of parts of the Ukraine and Belarus, were evacuated in the aftermath of the explosion. The evacuation of villages near the reactor began about 40 hours after the explosion. It was only by 2 May, nearly a week later, that the evacuation zone was extended to thirty kilometres around the plant. Human occupation of this exclusion zone is still banned for medical reasons.

Although the area has been subjected to some of the worst radioactive contamination in history, wildlife has proved to be remarkably resistant to the known biological effects: radiation, notably mutations and birth deformities. Scientists from the International Radioecology Laboratory just outside the exclusion zone have noted a general increase in the diversity of wild plants and animals and the unexpected return of rare species to the area. Wild boar, moose, wolves, deer, beavers otters and lynx have become well established in the zone, while species associated with its previous human occupation — such as rats, house mice, sparrows and pigeons — have declined. No less than 48 species listed in the international *Red Book* of endangered animals and plants are now thriving

in the Chernobyl exclusion zone. A rich community of aquatic wildlife has even been recorded living in one of the contaminated cooling ponds at the power station site itself. The surprising resilience of the local ecology has led to calls for the exclusion zone to be designated a permanent nature reserve where endangered plants and animals can be free to breed as the land reverts to its original forested state thanks to the absence of human interference.

Political consequences

The disaster at Chernobyl also had serious political implications for the nuclear power industry. When energy generated by nuclear fission was first developed for civilian use in the 1950s, it was heralded as cheap, clean and safe. The image of nuclear power has changed considerably since those times, and today it is one of the most controversial forms of energy from both economic and environmental perspectives. The financial cost of closing Chernobyl is colossal and the Ukraine is relying heavily on aid donations from the West to help. The overall cost of the closure could be around US $2 billion and full decommissioning of the station will take up to 50 years. Meanwhile, Switzerland and Spain have imposed moratoriums on further construction of nuclear reactors, while Belgium has adopted a long-term phase-out plan for its seven plants. The Dutch government has called for the closure of its last atomic power station and Germany has decided to phase out atomic energy in something over two decades. The deadly lessons learned from the world's most notorious power plant at Chernobyl played a part in all of these decisions.

C. Answer the following questions.

1. Was the Chernobyl catastrophe the first accident of its kind in the world?
2. What hindered the closure of the Chernobyl power plant?
3. Under what circumstances did the reactor explode?
4. Which countries fell victim to the disaster?
5. Who got victimized in the first turn?
6. What does the long-term aftermath consist in?
7. In what way does the environment benefit from the consequences of the accident?
8. How did the Chernobyl catastrophe effect political decisions made worldwide?

D. Explain the meaning of the following words and word-combinations.

1. The Group of Seven.
2. Death toll.
3. Hotspots.
4. To increase tenfold.
5. Chernobyl AIDS.
6. To conform to standards.
7. Cooling ponds.
8. To have a design flaw.
9. RED Book.
10. Political implications.
11. Phase-out plan.

E. Make a list of.

1. Radionuclides injected as a result of the Chernobyl disaster.
2. Diseases caused by people’s exposure to radioactive substances.

F. Consult the text and give synonyms to the following words and word combinations.

1. To use up.
2. Destructive.
3. Unavoidable.
4. By hand.
5. Explosion.
6. To scatter.
7. To outweigh.
8. To remain.

G. Work in pairs to discuss:

1. The various aspects of the accident at Chernobyl.
2. The way you feel about the disaster and its "deadly legacy".
3. The measures that ought to be taken in order to diminish its devastating consequences.
4. The precautions that should be taken to avoid such accidents in future.

Task 4. **Make up a list of actions one should undertake in case such an accident as the Chernobyl catastrophe occurs.**

[2] Task 5. **You will hear three speakers talking about renewable energy sources.**

A. Before listening to the recording, try to explain the meaning of the following words and word combinations.

To store power, a gadget, a warehouse, a windmill, a blade.

B. Listen to the recording and write S (for solar energy), W (for wind power) and H (for hydropower) next to each use of alternative energy.

1. Run small gadgets.
2. Create electricity for whole cities.
3. Power grain mills and sawmills.
4. Heat water.
5. Run homes and communities.
6. Heat and cool factories.
7. Power batteries.
8. Pump water.

C. Listen to the recording once again and fill in the chart with the relevant information.

The source of power	Advantages	Drawbacks

D. Quick debate: discuss the items with your groupmate(s).

1. They say the world experiences energy crisis nowadays. Do you see a way out? What can be done to improve the situation?

2. Is it possible to stop using fossil fuels? Why (not)?
3. What are the alternative energy sources? What do you think of renewable energies, such as solar, wind or wave power?
4. What renewable energy sources could and should Belarus be using?
5. Would you pay for much more expensive electricity to help the environment?
6. Isn't nuclear power best for the environment?

Task 6. **Make a poster about how we can save energy every day. Include a survey of whether people do these things and what they think of them. Present your work to your groupmates. Did you all have similar things?**

U N I T 1 7
GREENPEACE

Task 1. **Fill in the missing word. The first letter of the word is given to you.**

1. Many countries use fossil *f*_____, such as coal, to generate electricity.
2. Global *w*_____ is caused by high levels of dangerous gases in the atmosphere.
3. Many *s*_____ of fish have been wiped out by overfishing.
4. Many forests in Europe have been damaged by *a*_____ rain.
5. *W*_____ power offers a solution to energy problems.
6. Pandas are considered an *e*_____ species.
7. We should protect animals' natural *h*_____.
8. The ozone *l*_____ protects the earth from the sun's harmful rays.
9. We should use *a*_____ sources of energy.
10. *D*_____ needs to be stopped or there will be no rainforests left.
11. Despite the efforts of Friends of the Earth and other *c*_____, humans continue to *e*_____ pollutants and c_____ land, air and water.
12. *P*_____ of the seas and rivers is caused by wastes from plants and factories.

& Task 2. **Read the following article about an environmental organisation.**

A. What environmental pressure organisations do you know? What do they campaign for / against?

B. Check the pronunciation of the following words.

1. Amsterdam.
2. Vancouver.
3. Finite.
4. Peregrine falcons.
5. Plight.
6. Pivotal.

C. Read the article and find out facts to prove that the activity of Greenpeace is really successful.

GREENPEACE

Greenpeace is one of the leading environmental pressure organisations in the world. Based in Amsterdam, the Netherlands, Greenpeace has 2.8 million supporters worldwide, and national as well as regional offices in 41 countries.

Our message is a simple one: it is only in protecting the earth that we can protect ourselves — against pollution, the destruction of our urban and rural environment, mass unemployment and the horrors of global famine and war.

This is a message which — at last — is beginning to be taken seriously by politicians and economists. Their concern is genuine. But their readiness to act is still very limited.

And that's where Greenpeace comes into it. It is our role to put the pressure on politicians and decision-makers at every level. We act to change attitudes and behaviour, to protect and conserve the environment and to promote peace by:

– catalysing an energy revolution to address the number one threat facing our planet: climate change;

– defending our oceans by challenging wasteful and destructive fishing, and creating a global network of marine reserves;

– protecting the world's remaining ancient forests and the animal, plants and people that depend on them;

– working for disarmament and peace by reducing dependence on finite resources and calling for the elimination of all nuclear weapons;

– creating a toxic free future with safer alternatives to hazardous chemicals in today's products and manufacturing;

– supporting sustainable agriculture by encouraging socially and ecologically responsible farming practices.

History

In 1971, motivated by their vision of a green and peaceful world, a small team of activists set sail from Vancouver, Canada, in an old fishing boat. These activists, the founders of Greenpeace, believed a few individuals could make a difference.

Their mission was to “bear witness” to US underground nuclear testing at Amchitka, a tiny island off the West Coast of Alaska. Amchitka was the last refuge for 3000 endangered sea otters, and home to bald eagles, peregrine falcons and other wildlife.

Even though the old boat was intercepted before it got to Amchitka, the journey sparked a flurry of public interest. The US still detonated the bomb, but the voice of reason had been heard. Nuclear testing on Amchitka ended that same year, and the island was later declared a bird sanctuary.

Campaign Methods

Against all odds, Greenpeace has brought the plight of the natural world to the attention of caring people. Terrible abuses to the environment, often carried out in remote places or far out to sea, have been headlined on television and in the press. Peaceful direct action by Greenpeace has invoked the power of public opinion which in turn has forced changes in the law to protect wildlife and to stop the pollution of the natural world.

Greenpeace staff and groups are constantly addressing public meetings; giving radio, TV and newspaper interviews; and meeting politicians, civil servants, local government officers and representatives from industry.

The organization uses non-violent confrontation to raise the level and quality of public debate. For instance, Greenpeace sent its tiny inflatable boats to protect the whales. They took up position between the harpoons and the fleeing whales. Today, commercial whaling is banned.

On the ice floes of Newfoundland, Greenpeace volunteers placed their bodies between the gaffs of the seal hunters and the helpless seal pups. The hunt was subsequently called off.

In the North Atlantic, Greenpeace drove its inflatables underneath falling barrels of radioactive waste. Now nuclear waste dumping at sea has been stopped.

In the North Sea, Greenpeace swimmers turned back dump ships carrying chemical wastes. New laws to protect the North Sea have been promised.

Finance

Greenpeace does not accept funding from governments, corporations or political parties. The organisation neither seeks nor accepts donations that could compromise its independence or aims. Greenpeace relies on the voluntary donations of individual supporters, and on grant support from foundations.

How to Get Involved

If you have the time, the best way to campaign for the concerns of Greenpeace is through your local group. Each group carries out a wide variety of activities and there is a role for everyone.

So far the twentieth century has been a disastrous one for the earth. Let's reverse the trend while there is still time. Simply by joining Greenpeace you are giving much needed financial support. Every new member is another vote for a better world.

Victories of Greenpeace

Greenpeace has been campaigning against environmental degradation since 1971 and has played a pivotal role in, among other things, the adoption of:

- a ban on toxic waste exports to less developed countries;
- a moratorium on commercial whaling;
- a Southern Ocean Whale Sanctuary;
- a 50-year moratorium on mineral exploitation in Antarctica;
- bans on the dumping at sea of radioactive and industrial waste and disused oil installations;
- an end to high-sea, large-scale driftnet fishing;
- a ban on all nuclear weapons testing — our first ever campaign.

D. Provide answers to these questions.

1. What is Greenpeace? Specify the message and the role.
2. What are the aims of the organization?
3. What is the history of Greenpeace?
4. What are the methods to get the message across?
5. What are the activities/events/campaigns/protests organised by its volunteers?
6. How can you campaign for the concerns of Greenpeace?

E. Prove that the statements are true or false using the information from the article.

1. Greenpeace has 5 million supporters worldwide and offices in 51 countries.
2. Greenpeace is a political organization.
3. The organization was established in 1972.
4. The first Greenpeace campaign was connected with the protection of rain forests.
5. Greenpeace uses all possible means to raise the level and quality of public debate.
6. The organization relies on the voluntary governmental donations.

F. Explain what the following word combinations mean.

1. Urban and rural environment.
2. Global famine.
3. Energy revolution.
4. Marine reserves.
5. To bear witness.
6. A flurry of public interest.
7. Remote places.
8. Non-violent confrontation.
9. A pivotal role.
10. A moratorium on commercial whaling.
11. Green movement.

G. Consult the article and give synonyms to the following words and word combinations.

1. A shelter.
2. In spite of difficulties.
3. A difficult situation.
4. Dangerous.
5. To cancel, to abandon.
6. A reserve.
7. Central.
8. To prohibit.

H. Discuss the following:

1. What other facts do you know about the activity of Greenpeace?
2. Have you ever taken part in a protest action? Would you ever become part of a human shield to protest against something?
3. What protests by Greenpeace do you support most? Would you like to participate in any of them?
4. What actions of Greenpeace do not appeal to you? Why?
5. Some people regard Greenpeace activists as environmental terrorists. Do you support this opinion? Why (not)?
6. What actions could Greenpeace take in Belarus?

¿ Task 3. **Watch a video provided by Greenpeace.**

A. Be ready to identify environmental problems mentioned in the video.

B. Answer the following questions.

1. How would you entitle the video? Why?
2. What does the earth need according to the video? Why?
3. What are the actions taken by Greenpeace? In your opinion, are they effective?
4. Can you personally become the voice of the planet?

[2] Task 4. **You will hear an interview with a member of an environmental protection group.**

A. Listen to the recording and mark the sentences as true or false.

1. Dan is an aggressive person.
2. The "Act Now" group planted flowers to show people how they feel.
3. "Act Now" is for children.
4. Dan wants to teach people how to use fertilizers and pesticides.
5. "Act No" arranges public protests and demonstrations.
6. Dan knows lots of famous people.
7. Dan and his group spend a lot of time on the computer.

B. Discuss the following:

1. Would you like to join any environmental protection group*?*
2. What would you protect or what activity would you ban in your native place?

Task 5. **Discuss any situation with a groupmate/groupmates (make up dialogues).**

1. A volunteer from Greenpeace is interviewed by a newspaper reporter about the history and campaign methods of this organisation.
2. Two Greenpeace activists discuss how to organise a march of protest against smoking in public places.
3. One of you wants to join Greenpeace, another is really skeptical.
4. You are members of Greenpeace. Organize a campaign the purpose of which is to make more people ecologically-conscious.

Task 6. **Find information about a national "pressure group". Be ready to compare a pressure group in Belarus with international environmental groups like Greenpeace, Friends of the Earth, etc. Find out what is similar in their activity.**

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