**План открытого урока**

**«How can we help the environment ?»**

**Цель урока**: Обобщить знания о проблемах окружающей среды и мерах по ее защите.

**Задачи:**

**воспитательный аспект**- 1) обеспечить условия для воспитания положительного интереса к изучаемой теме; 2) способствовать воспитанию бережного отношения к окружающей среде.

**познавательный аспект**-1) способствовать поиску нужной информации по теме 2) обобщить знания о проблемах окружающей среды.

**развивающий аспект**- 1) способствовать развитию умений учащихся обобщать полученные знания, проводить анализ, синтез, сравнения, делать необходимые выводы; 2) обеспечить условия для развития умений грамотно, четко и точно выражать свои мысли.

**учебный аспект**-1) способствовать развитию навыков коммуникативной компетенции по видам речевой деятельности: устной речи на базе подготовленных монологических высказываний (защита проектов); неподготовленного диалога-обмена информацией, обсуждения в группах; письменной речи (оформление мини-плакатов по теме “ Don’t pollute the Environment”) 2) способствовать совершенствованию грамматических навыков Conditionals II, лексических навыков « Окружающая среда»

**Оборудование**: Схемы, раздаточный материал, мультимедийный материал, творческие работы учащихся (мультимедийные презентации), проектор.

Ход урока

**I. Оргмомент.**

Приветствие. Разговор с дежурным. Объявление темы урока: The Theme of our lesson is «How can we help the environment ?»

Обращение к учащимся: “ I’d like you to formulate the tasks of the lesson”

T: You see the plan of our lesson: 1) The poem “Oh, Russia, I am in love with you” 2) Share opinions “What are the crucial problems of the day?” 3) Discuss in groups: “What would you do if…?” 4) Listen to the song and do some physical jerks. 5) Presentations and projects. 6) Draw posters and write “Don’ts on some topics”

P1: I think , we are going to speak about the problems of the environment, share the opinions about the problems, discuss how to help the Earth, present our projects.

P2: In my opinion, according to our plan , we are going to speak on the problems of the environment and come to the conclusion “How to save the Earth?”

P3: To my mind, we are going to speak about environmental problems, revise grammar, vocabulary and decide how to help the earth.

**II. Формирование произносительных навыков.**

R Russia, remember, rivers, free, great, trees

S seas, sand, strand, songs, sunrise, splendid, sight, such

Oh, Russia, I’m in love with you! Remember , Russia, you are great Not in the fields of battles past but in the green fields full of wheat And forests, gardens, free of dust. I love you deeply, dear land Your hills and rivers, sand and strand Your songs and dances, lakes and seas Your beasts and fish, birds in trees Your sunrise in a splendid sight Which always gives me such delight.

**III. Речевая зарядка**

На доске схема

Destruction of living beings, animals, plants

People pollute themselves with drugs, alcohol, smoking, unhealthy food, domestic rubbish

Lack of recycling

Nuclear tests, development of industries and dangerous technologies

Water pollution

Air pollution

The most crucial environmental problems of the day

T: Look at the blackboard and say what are the most crucial environmental problems of the day.

P1: I think, it is air pollution.

P2: As far as I know, it is water pollution.

P3: In my opinion, it is destruction of animals, plants and natural resources.

P4: To my mind, lack of recycling is a serious problem.

P5: I think, people pollute themselves with drugs, alcohol, smoking, unhealthy food and domestic rubbish.

T: OK, what is the conclusion?

P6: I think, we must save the Earth.

**IV. Развитие грамматических и лексических навыков говорения. Работа в группах.**

T: The first group will tell us what they would do to save electricity and water. I will give you a list of words and word combinations: 1) turn off the lights, leave the room, turn off the TV-set, not watch it 2) electric power stations, give electricity, the more… the more, produce, coal, burn, less coal, protect the environment, from the greenhouse effect, acid rain 3) turn off taps, don’t need, waste (save) water; 4) fix leaking taps, leaking toilets, save water.

P1: If we turned off the lights when we leave the room and turned off TV-sets when we don’t watch it we would save electricity. P2: Electric power stations give us electricity. The more electricity they produce, the more coal they burn. If they burnt less coal, we would protect the environment from greenhouse effect and acid rain. P3: If we turned off taps when we don’t need it we would save water or wouldn’t waste it. If we fixed leaky toilets and leaky taps we would save water.

T: The second group will tell us what they would do to keep the environment clean. I will give a list of words and word combinations: 1) drop less litter, keep the environment clean; 2) throw rubbish into bins, not in the streets or public places, keep our towns, cities, countryside clean; 3) have recycling centers, throw less rubbish; 4) buy less packaged goods, have less rubbish.

P1: If we dropped less litter, we would keep the environment clean. P2: If we threw rubbish into bins, not in streets and public places, we would keep our towns, cities, and countryside clean. P3: If we had recycling centers in our towns, we would throw less rubbish. P4: If we bought less packaged goods, we would have less rubbish.

T: The third group will tell us what they would do to save forests, wild animals and plants. I will give you a list of words and word combinations: 1) drop litter in the forest, when have picnics, keep our forests clean (not pollute) forests; 2) put out camp fires, not burn forests, a lot of plants and animals, be saved; 3) not cut down trees, save forests 4) not cut down trees, not disappear forests.

P1: If we didn’t drop litter in the forest when we have picnics, we would keep our forests clean (we wouldn’t pollute the forests). P2: if we put out camp fires, we wouldn’t burn forests and a lot of animals and plants would be saved.

P3: If we didn’t cut down trees, we would save our forests. P4: If we didn’t cut down trees, forests wouldn’t disappear.

T: The fourth group will tell us what they would do to reduce water and air pollution. I will give you a list of words and word combinations: 1) factories, not dump wastes into lakes, rivers and seas, a lot of, fish, sea animals and plants, not die; 2) cars, trucks, buses, airplanes, not pollute the air with exhausts, air, be clean 3) not emit tons of harmful chemicals, not pollute the atmosphere with tons of dust and harmful substances.

P1: If factories didn’t dump wastes into lakes, rivers, and seas, a lot of fish, sea animals and plants wouldn’t die. P2: If cars, trucks, airplanes didn’t pollute air with their exhausts the air would be clean and fresh. P3: If factories didn’t emit tons of harmful chemicals, they wouldn’t pollute the atmosphere with tons of dust and harmful substances.

**V. Физкультминутка. Выполняется под музыку песни “ Hokey Pokey”.**

**VI. Защита проектов Проект 1 Air Pollution**

**P1**: We need clean air to breathe. Polluted air is a community problem. Air becomes polluted in many ways. Cars, trucks, buses, airplanes are among the worst polluters.

In order to understand how air pollution affects our body, we must understand what pollution is. The pollutants that harm our respiratory system are known as particulates. Particulates are products of incomplete combustion in engines, for example: internal-combustion engines, road dust and wood smoke. Billions of tons of coal and oil are consumed around the world every year. When these fuels are burnt, they produce smoke and other by-products, which is emitted into atmosphere. As a rule, we have smog, mixture of fog and smoke. Among the most dangerous to our health are carbon monoxide, nitrogen oxides, sulfur dioxide and ozone or active oxygen.

**P2:** Factories emit tons of harmful chemicals. These emissions have disastrous consequences for our planet. They are the main reason for the greenhouse effect and acid rains. Large cities with numerous industrial enterprises appear all over the world. Every year world industry pollutes the atmosphere with tons of dust and other harmful substances. People from many cities suffer from smog. Among the dirtiest cities and towns in Russia are Norilsk, Dzerzhinsk, Chernobyl, Chelyabinsk, Cheropovets, Ufa and many other cities.The most horrible ecological disaster is the Chernobyl tragedy (in 1986), when the territory of Buelorussia, the Ukraine and Russia were polluted with radioactive substances. The consequences of this explosion at the nuclear power station are tragic: a great damage has been done to the agriculture, forests, people’s health.

**Вопросы к 1 группе: P3: What are particulates?** **P1:** Particulates are the small solid particles that you can see through rays of sunlight. They are products of incomplete combustion in engines, for example: internal-combustion engines, road dust and wood smoke. **P4: What is greenhouse effect?** **P2:** The greenhouse effect is the absorption of energy radiated from the earth’s surface by carbon dioxide and other gases in the atmosphere, causing the atmosphere to become warmer. Each time we burn gasoline, oil, coal, or even natural gas, more carbon dioxide is added to the atmosphere. The greenhouse effect is what is causing the temperature on the earth to rise.

**Проект 2: Water Pollution:**

**P3**: Water is necessary for life. Water pollution kills large quantity of fish, birds and other animals. Water pollution makes lakes, rivers and seas unpleasant to swim.

Water pollution is caused by dumping wastes into lakes, rivers, seas. Many factories and enterprises put their waste materials into water. Water pollutants are chemical, biological materials that lessen the water quality.

**P4**: Pollutants can be separated into several classes: the first class is petroleum products: oil, fuel, lubrication, plastics. The petroleum products get into water by accidental spills from ships, tanker trucks. Many petroleum products are poisonous for animals. The second class is pesticides and herbicides. These are chemicals used to kill harmful insects, animals and plants. If they penetrate into water, they can be very dangerous. The third class are heavy metals, such as, mercury, selenium, uranium, radium, cesium etc. They get into water from industries, automobile exhausts, mines and natural soil. Heavy metals are very dangerous because they accumulate in living being’s cells and become poisonous.

The problems of lake Baikal make scientists think seriously about man-nature relations. When the Baikal pulp-and-paper factory was built there, the whole of ecological system of the lake changed greatly. So, rivers, seas and lakes are in danger.

**Вопросы к 2 группе- P1: How do people themselves pollute water? How can we fight** **with it?** P3: It isn’t a secret, people themselves throw litter into rivers, lakes and seas. They throw plastic and glass bottles and don’t realize the danger of it. Besides, they wash their cars near the rivers. I think, people must be fined for it.

**P2: How are problems of lake Baikal decided?** P4: As far as I know an international environmental research centre has been set up on lake Baikal.

**Проект 3.** **The environmental protection is a universal concern**

**P5**: The Earth is in danger. That is why serious measures to create a system of ecological security should be taken.

Some progress in this direction has already been made in this direction. Some countries have set up environmental protection agencies. Numerous conferences has been held by these agencies to discuss questions of ecologically poor regions including the Aral Sea, the South Urals, Semipalatinsk, Dzerzhinsk, Chernobyl etc. An international environmental research centre has been set up on Lake Baikal.

**P6**: The international organization “Greenpeace” is also doing much to protect the environment. It actively works to protect the environment from harm. Youth organization “Greenpeace” wants to stop damage to the environment caused by nuclear testing, pouring of poisonous waste into the sea, and the killing of whales and other animals. It protests against nuclear power programmes, sea and soil pollution, etc. We need a clean, healthy planet. Millions of people join “Green Peace”, “Friends of the Earth”, “Travel for Peace and Nature”, “The World Wildlife Fund” (WWF) etc.There are Russian Organizations against the environmental pollution. Theyare:The Russian Society of Nature Protection – Всероссийское общество охраны природы;The Russian Society of Ecological Economy – Российское общество экологической экономики;The commission of the community Chamber on ecological Safety and Protection of the Environment – Комиссия общественной палаты по экологической безопасности и охране окружающей среды;The Society of Bird’s Protection of Russia – Союз охраны птиц России;The Russian Ecological Congress- Русский экологический конгресс;The Russian Association of Public Societies of Hunters and Fishermen – Российская Ассоциация общественных объединений охотников и рыболовов.The main goal of these organizations is to save animals, plants and to protect the environment. They work a lot at the ecological problems.

**Вопросы к 3 группе:**

**P7: How many countries have set up environmental protection agencies?** P5: I know that as far as 159 countries have set up environmental protection agencies. **P8: What can you say about “Travel for Peace and Nature”?** P6: “Travel for Peace and Nature” is a public movement, which appeared in Russia some years ago.

**Проект 4**

**The Pollution of the Environment in Norilsk. The consequences.**

**P7**: Some amount of wastes in Norilsk accounts for the part of energetic enterprises, supplying industrial works.

One of the largest mining metallurgical group of enterprises- the company “Norilsk Nickel” is the owner of many industrial works. The extraction and mining, processing and refining of non-ferrious metals is extremely “dirty” from ecological point of view production, using not only smelting furnaces but high toxic chemical reagents for concentrating ores and extracting of rare metals from them. The main problem of Norilsk is the maintenance of heavy metals. The plants and factories of the town (Medny and Nadezhdenski Plants) of mining metallurgical industry give dangerous wastes of 500 tons of copper and oxides of nickel and 2 million of dioxide of sulphur in a year. About 130 thousand people breathe in components of sulphur dioxide, heavy metals every day.

**P8:** **The consequences of industrial pollution**

The statistic data about diseases are the following- the residents of Norilsk are ill with oncological diseases twice more often than in any other part of Russia. The average life duration is ten years less than in some regions of Russia. You can see the raise of the respiratory diseases, lung cancer and diseases of digestive system. In this situation children are especially vulnerable, they fall ill one and a half times more often than in other regions. The number of these diseases include psychical illness, acute and chronic poisoning, abnormal work of internal organs and respiratory system.

**Вопросы к 4 группе:**

**P5: How do electric power stations pollute the atmosphere in Norilsk? P7:** Norilsk is one of the most northern towns of the world, not only Russia. The average temperature of January is about minus 31grades Centigrade and the period of steady frosts lasts 280 days in a year.

Any town or city in the conditions of severe winter demands proper heating and the industry needs electric energy. So there are 3 electric power stations in our town. As you know electric power stations burn coal to produce energy, that burning coal gives off gases which pollute the atmosphere.

**P6: What measures are taken against pollution in Norilsk?** **P8**: We can’t say that no measures are taken against pollution. Norilsk tries to improve the ecological situation. For example, they carry out monitoring of the environment on the mining- metallurgical group of enterprises. The modernization of the equipment takes place here and they work out ecological programmes for reduction of wastes. According to Russian statistic data the wastes of polluting substances have been reduced to 4.5 %. The local authorities realizing the dangerous consequences of the situation have been engaging the great amount of investments, which support that harmful wastes are reducing.

**Проект 5. We must take care of nature. The Red Data Book.**

**P9:** We must take care of nature. We mustn’t cut down trees. A lot of forests disappear. We mustn’t pick up wild flowers and break trees, because nothing is forever. Some flowers, trees and plants are in the Red Data Book. They are in danger.

When we go hiking, we should put out the camp fire after camping. We mustn’t drop litter and leave plastic bottles, cans and plastic bottles all over the place. We mustn’t leave glass. Plastic bottles last for 500 years. Glass is forever. If we pollute water, fish will die. If we leave a campfire, all the trees in the forest can burn, animals and birds will die. People mustn’t wash cars near rivers and lakes.

**P10:** I’d like to speak about Endangered Animals:

Among animals which are almost extinct in Krasnoyarsk Territory are: Northern Deer-северный олень; Red Deer- благородный олень; Elk- лось; Siberian Roe Deer- сибирская косуля;Sea animals and fish which are extinct **:** Walrus- морж; Laptev walrus subspecies- морж лаптевский подвид; Northern fin whales or herring- северный финвал или сельдяной кит; Sturgeon- осетр; Sterlet- стерлядь; Outrigger ordinary- валек обыкновенный; Lenok- ленок. Among Rare Birds are:White- billed Diver- белоклювая гагара; Bittern- большая выпь; Black Stork- черный аист; Whooper Swan- лебедь-кликун; Black Crane- черный журавль; Common Crane- серый журавль; Mountain Goose- горный гусь;

**P11:** I willspeak about Rare and Extinct plants.

About 130 species of Rare and Extinct plants grow in the territory: Siberian pine- сибирский кедр; Linden Natschyokina- липа Нащекина; Siberian Silver Fir- сибирская пихта; Siberian Fir- сибирская ель; Siberian Larch- сибирская лиственница; Ordinary Pine- сосна обыкновенная; Black Poplar- черный тополь; White Birch- береза бородавчатая; Fluffy Birch- береза пушистая; Fluffy Alder- пушистая ольха;

Plants which are in Red Data Book: Lady’s Slipper- венерин башмачок ; Siberian Kandyk- кандык сибирский ; Kubishka- кубышка ; Krasnodnev- красноднев ; Orchis- ятрышник ; Astragal- астрагал ; Iris- касатик ; Cross- plant- прострел ; Chilim- чилим ; Asian globeflower- купальница азиатская ; Anemone- ветреница дубравная.

**Вопросы к 5 группе:**

**Р8:** **What can we do to save animals?** **P10 :** First of all, we must save the habitat: if we continue to cut trees and burn forests, a lot of animals will disappear; if we continue to pollute rivers, lakes and seas, a lot of fish and water animals will die. And it goes without saying, we mustn’t kill animals!

**P9:** **How can we save extinct plants?** **P11**: I think, we must do our bests, to save plants, trees, flowers because they make our life beautiful. That is why we mustn’t cut down forests, we mustn’t pick wild flowers, we mustn’t pollute forests. If we don’t stop doing it, they will disappear forever!

**VII. Развитие навыков письма.** Now you will work in three groups: Write your

Don’ts, give reasons and draw posters.

**Group1. Your topic: Don’t throw litter.**

Примерные ответы:

1. Don’t throw cans. Cans last 100 years.
2. Don’t throw plastic bottles. Plastic lasts 500 years.
3. Don’t throw glass bottles. Glass lasts forever.
4. Don’t throw wool socks. Wool socks last 1 year.

**Group2. Your topic: Don’t destroy your health.**

Примерные ответы:

1. Don’t use drugs. You’ll become addictive. Drugs are dangerous.
2. Don’t smoke. Smoking is harmful for your health.
3. Don’t drink alcohol. You’ll become addictive.
4. Don’t eat unhealthy food. It is harmful for your health.

**Group3. Your topic: Don’t hurt animals and plants.**

Примерные ответы:

1. Don’t kill animals and birds. A lot of animals and birds are endangered.
2. Don’t throw away your pets. They can’t protect themselves.
3. Don’t forget to put out food for wild animals. They can’t find food in winter.
4. Don’t pick up wild flowers. A lot of wild flowers are in Red Data Book.
5. Don’t break trees. A lot of trees disappear.

**Подводим итоги: чей плакат лучше. Whose poster is the best?**

**VIII. 1) Подведение итогов урока. Рефлексия.**

T: What do you think about the lesson?

P1: I think , our projects were really interesting.

P2: In my opinion, we know how to protect the environment now.

P3: To my mind, we really understand that it is important to protect the environment.

**2) Оценки.**

**3) Заключительно слово учителя: “If you don’t think about future, you will not have it”**

**VIII. Домашнее задание.** Write 10 sentences: What would you do to save the Earth?