Актуальные экологические проблемы Республики Беларусь

(11 класс)

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В связи со строительством первой Белорусской АЭС на нашей малой родине – в Островецком районе – более остро вырисовывается необходимость экологического воспитания учащихся. Ралф Эмерсон правдиво подметил: «Природа не терпит неточностей и не прощает ошибок». Мы до сих пор сталкиваемся с последствиями таких «ошибок» человечества. Очень важно формировать экологическое сознание и мировоззрение учащихся с самого раннего возраста, учить детей принимать на себя ответственность за собственные действия и их оследствия.

Воспитание экологической культуры – одна из важнейших воспитательных задач и на уроке английского языка. Учебное занятие «Актуальные экологические проблемы Республики Беларусь» для учащихся 11 класса призвано не только обратить внимание на существующие проблемы окружающей среды, но и побуждают молодых людей задуматься о причинах, последствиях и способах решения данных проблем.

Приложение 1

International Scientific Conference

of young scientists, graduates, master and PhD students

"Actual Environmental Problems", 2017

The Conference will be held on November 24–25, 2016 at International Sakharov Environmental Institute of BSU

Address:

23/1 Dolgobrodskaya Street

220070 Minsk

Republic of Belarus

Phone.:*+375 17 398 93 44*
+375 17 398-99-48
(only for foreign participants)

Fax: *+375 17 398 99 53*
(only for foreign participants)

(with notice "Conference")

E-mail: conf@iseu.by,
URL: ***http://www.iseu.bsu.by***

First Announcement

Main topics of the Conference

1. SOCIAL AND ENVIRONMENTAL, ETHICAL AND PEDAGOGICAL PROBLEMS IN ACCORDANCE WITH A.D.SAKHAROV'S IDEAS

2. MEDICAL ECOLOGY

3. PROBLEMS OF MODERN ENVIRONMENTAL SAFETY

(BIO-MONITORING, BIO-INDICATION, BIO-REMEDATION, RADIOECOLOGY AND RADIATION SAFETY, ENVIRONMENTAL MONITORING, MANAGMENT AND AUDIT. INFORMATION SYSTEMS AND TECHNOLOGIES IN ECOLOGY)

4. CLIMATE CHANGE AND SUSTAINABLE DEVELOPMENT. RENEWABLE ENERGY SOURCES AND ENERGY CONSERVATION

Forms of participation

- Oral presentation at sectional session
- Poster paper
- Distant participation

Presentation of abstracts

To participate in the Conference you need to send to the Conference Program Committee an abstract and the registration form. Contents of the abstract should correspond to one of the Conference topics.

Abstracts will be reviewed by the Program Committee, which makes the decision about report admission.

Conference abstracts will be published before the Conference.

Full texts of the best reports after their representation at the Conference with the Program Committee recommendation will be published in the form of articles in scientific journal "Ekologichesky vestnik", included into the list of HAC (Higher Attestation Commission).

Deadline:

October 21, 2017

WORKING LANGUAGE:

ENGLISH

Приложение 2

I. Word collocations

1. acid	a) gas
2. endangered	b) waste
3. deforestation	c) species
4. greenhouse	d) depletion
5. soil	e) contamination
6. radioactive	f) rain
7. nuclear	g) degradation
8. resource	h) biodiversity
9. loss of	
10. overfishing	

II. Definitions

Collocation	Definition
1.	a) damage to the land's productive capacity because of poor agricultural practices such as the excessive use of pesticides or fertilizers, erosion of topsoil, eventually resulting in reduced ability to produce agricultural products
2.	b) waste materials from nuclear reactors, which ae radioactive
3.	c) a gas that "traps" infrared radiation in the lower atmosphere causing surface warming
4.	d) a species that is threatened with extinction either by direct hunting or habitat destruction
5.	e) decrease in variety of biological species
6.	f) reduction of natural resources
7.	g) pollution by radioactive elements
8.	h) is damaging and potentially deadly to the earth's fragile ecosystems; characterized as containing harmful levels of sulfur dioxide or nitrogen oxide
9.	
10.	

The key

I.		***II.***	
1.	f)	1.	h)
2.	c)	2.	d)
3.	-	3.	-
4.	a)	4.	c)
5.	g)	5.	a)
6.	e)	6.	g)
7.	b)	7.	b)
8.	d)	8.	f)
9.	h)	9.	e)
10.	-	10.	-

Приложение 3

PROBLEMS

REASONS

SOLUTIONS

Приложение 4

Problems of Soligorsk District

Referred to Republic regions facing problems are the Byelorussian Polesye, Byelorussian Poozerye, Novopolotsk industrial center, Soligorsk industrial district, boundary regions, territories contaminated with radionuclides. The SoligorskDistrictproblems are connected with production of potassium salts. There are three **potassium salt** (sylvinite)deposits in the Republic: the Starobinsk deposit (which is being developed), Petrikovsk andOktyabrsk deposits. The potassium ore reserves are estimated at 6.7 billion tons. The largescale production and processing of potassium ores have resulted in technogenic change of landscape:salt **refuse dumps** up to 120 m in height, slime storages, settling above exhausted mine space andformation of swampy areas. Refuse dumps are subjected to water and wind erosion.. The Belaruskali production associationdischarges more than 9 thousand tons of contaminating substances into atmosphere. The **outbursts**contain more than 70% of **sulphur dioxide**, more than 1025 tons of potassium dust a year and 24 tonsof hydrogen chloride a year.

Fig. 1 – Soligorsk District

The Soligorsk water storage is assessed as moderately contaminated one. Out of heavy metals,the maximum permissible concentration of **lead** and **cadmium** in well water is exceeded. More than 35 tons of salts chloride have penetrated intounderground water during thepotassium production time period.

The statistical data for the recent five years point to increase of sickness among population onthe territory with radius of 20 km around mines as compared to sickness average indicators. The above-mentioned data testify to a difficult ecological situation in the Soligorsk industrial district and a necessity of applying new technologies of producing andprocessing potassium ores. Of course, the Soligorsk industrial district is not a source of transboundary contamination, however, this district threatens more and more the health of people in the nearest populated localities.

potassium salt – калиеваясоль**refuse dumps –**свалкаотбросов
outbursts-выбросы
sulphur dioxide– диоксидсеры
lead –свинец
cadmium– кадмий

Приложение 5

Radioactive contamination

The Republic of Belarus was subjected to radioactivecontamination to a greater extent than other countries as a result of the disaster at the Chernobylatomic power station in the year of 1986. The fall-out of cesium-137 out of the total amount of ***fallout*** *on the European continent was 34% in Belarus, 24% in Russia, 20% in the Ukraine and 22% inother countries. The territories contaminated with radionuclides have an official status of ecological disaster in Belarus. The damage to the Republic of Belarus is estimated at 35 Belarus annual budgets. Special programs are being developed and* ***implement****ed, however, the weak economic potential does not make it possible to settle these problems* ***at accelerated rates****.*

Approximately the sixth part of agricultural lands is subjected to radioactive contamination.Contaminated to a great extent in particular are the Gomel and Mogilev Regions, in which two thirdsand one third of lands are contaminated, respectively.

The ecological problems with forests contaminated with radionuclides are of particularsignificance. Forests were considerably subjected to after-effects of the Chernobyl disaster. As ofJanuary 1, 2005, 1752.2 thousand hectares of the forestry fund (21.8% of the total forestry area) werecontaminated, 60.4% of the forestry fund in the Gomel Region and 39.4% of the forestry fund in theMogilev Region. The main problems with these forests are as follows:

- difficulties in production of forestry products having permissible levels of radioactive contamination;

- restrictions on forestry activity.

fallout *– радиационный выброс*

implement *– выполнять*

at accelerated rates *- быстро*

Приложение 6

Conservation of biological diversity

Belarus has large forests and extensive freshwater aquatic systems including bogs, mires, wetlands, lakes and rivers that provide habitats for many species. The country lies between eastern and western Europe and provides important migration corridors for European, Mediterranean and Siberian **endemic species**. However, due to previous glaciations, Belarus claims no endemic species of its own. Nonetheless, the country is rich in biodiversity with 467 **vertebrate specie**s and more than 30,000 **invertebrate species**. There are 76 species of mammals and 309

species of birds, of which 227 live permanently in Belarus with the rest migratory. The country contains 61 species of fish living in Baltic or Black Sea watersheds. The vegetation of Belarus consists of about 11,700 species of plants, including 2,100 species of higher plants. This includes 1,638 species of herbs (about 1,500 species). There are 107 wild **indigenous plants** species of wood plants of which 28 species are trees and the others are bushes and shrubs.

The main role in the conservation of biological and landscape diversity are belong to specially protected natural territory. Their total area is about 7,7 percent of the country.

4 National parks:

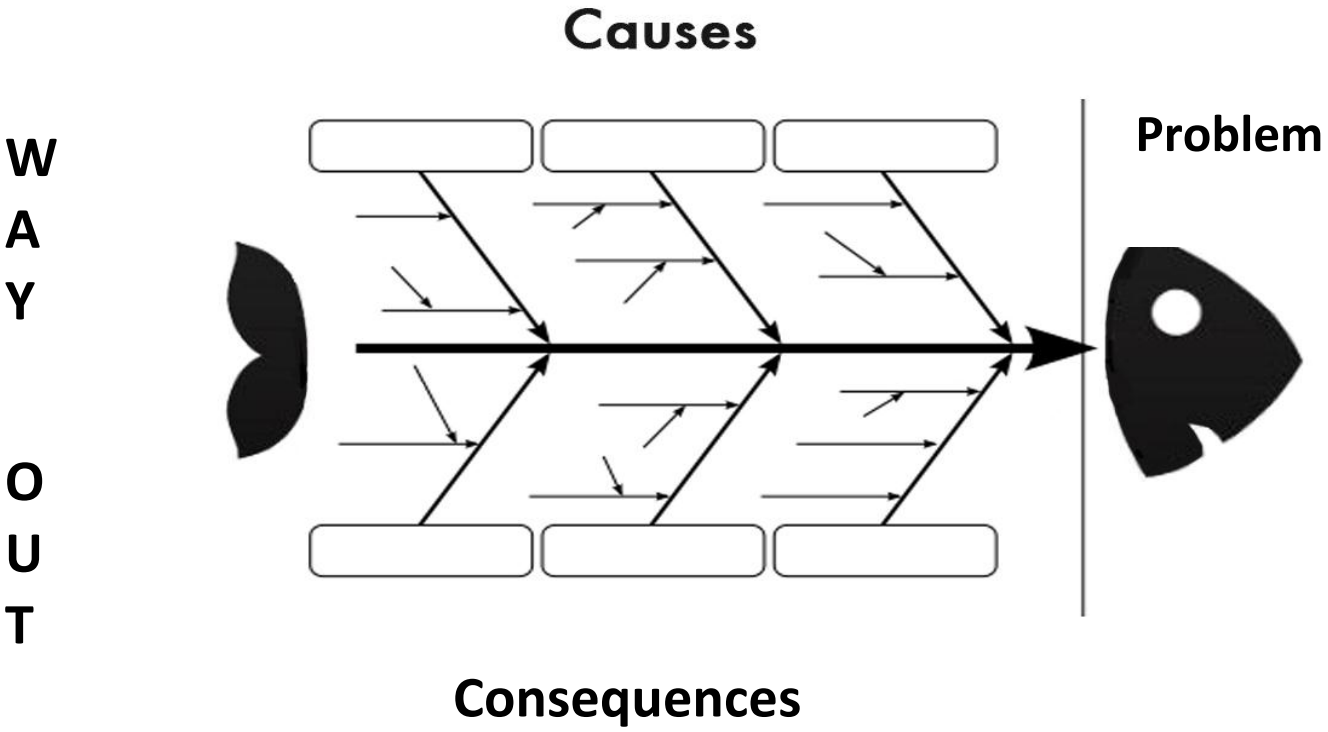
- Pripyatsky
- Braslav Lakes
- Narochansky
- BelovezhskayaPushcha and Berezinski Biosphere Reserve

One of the important events in the field of environmental protection is the opening of Information centre of preservation of the salmon in VornyanyOstrovets district Grodno region.

endemicspecies – свойственные данной местности виды
vertebrate species – позвоночные
invertebrate species – беспозвоночные
indigenousplants –местные растения

Приложение 7

Use fishbone method to make necessary notes



Приложение 8

Belarusian Land

There is no saving Belarusian land
Without 1._____
No 1._____
Without 2._____

There is no 2. _____
Without 3._____
No 3._____
Without 4._____

There is no 4. _____
Without 5._____
No 5._____
Without 6._____

There is no 6. _____
Without 7._____
No 7._____
Without 8._____