



CLIMATE MAGAZINE

FACING THE CLIMATE CHANGES IN THE 21ST CENTURY

The two faces of the ozone

20th -24th April 2015

Common work

The good ozone

The ozone layer which is found in the terrestrial atmosphere protects us from the dangerous radiations of the sun

-the ozone is a gas which is present in the atmosphere in very small quantities. The highest concentrations can be found in a layer which extends between 15 – 50 kilometres above us

-the ozone layer lets only a small part of the ultraviolet radiations penetrate the surface of the planet, which, in too big concentrations, would cause severe diseases (solar burnings, skin cancer)

-CFCs (chloro-fluoro-carbonates) are the main reasons for the shrinking of the ozone

layer. These toxic substances are found in substances used for refrigeration, in sprays. Since 1992 the usage of such substances is forbidden, in any kind of industry, in order to let the ozone layer rebuild itself

-under the effect of the solar radiations, CFCs disintegrate the ozone

The bad ozone

The ozone which forms in the soil is a very dangerous polluter for health.

-the exhaust gases released into the auto traffic, but also a series of industrial activities are the main sources responsible for producing this ozone, which is a harmful

polluter for health

-the big number of vehicles which circulate in the hot days and the absence of a corresponding ventilation favors the production of ozone in the soil.



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Who is polluting?

Pollution doesn't affect only the fauna (species of animals) and the flora (species of plants), but the health of people, too. In addition to this, pollution, through all of its forms, has as effects the changing of Terra's climate and global warming.

Agriculturists spray over their plantations all kind of chemical substances (fertilizers, herbicides, insecticides). Penetrating the soil, these substances pollute the groundwater and the rivers.

A series of other factors affect the waters of the seas and oceans and the shores: coastal cities, which throw their waste directly into the sea; accidents of oil tankers; old and rusty shipwrecks, which re-

lease into the marine waters, for a long period of time, toxic waste.

The burning of fuels in autovehicles has as an effect release of greenhouse gases, being the principal source of the atmospheric pollution in big cities.

A series of detergents and other products for cleaning (especially the ones containing aerosols) contain pollutant agents. When we throw our garbage (especially batteries and paints) in innapropriate places, the toxic liquids in their structure can infiltrate the waters and the soil.

Big factories release in the air dust, soot (carbon dust) and gases (carbon oxides) which reach very

high heights, polluting the atmosphere. Sometimes, a series of toxic chemical residues (mercury, for example) are spilt into rivers.

Used waters from home users through the sewerage systems, are treated in wastewater treatment stations.

Vehicles and some factories release in the atmosphere pollutants which, embedded in clouds, fall afterwards in the form of "acid rains". The water filled with pollutants attacks the leaves of trees, monuments, poisoning, as well, the soils and the vulnerable aquatic environments.

Romanian Team

The greenhouse effect

1. The natural greenhouse effect

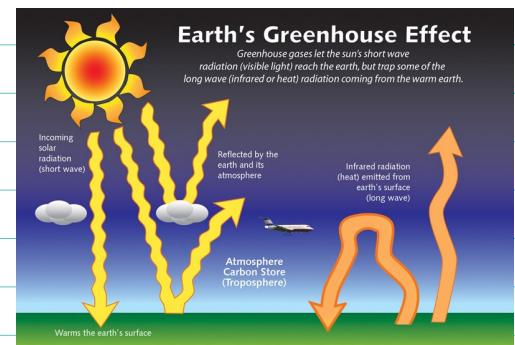
-a part of the solar radiation is reflected by ozon layer

-another part of this radiation penetrates the atmosphere. Terra warms.

-at its turn, our planet issues caloric radiations. A part of them are kept in the atmosphere by the ozone layer. This warming is a natural phenomom and it al-

lows the maintaining of a medium global temperature of 18° C. If it wouldn't be the natural greenhouse effect, the medium temperature on Earth would be -18° C.

-there are also terrestrial radiations which are lost through the atmosphere



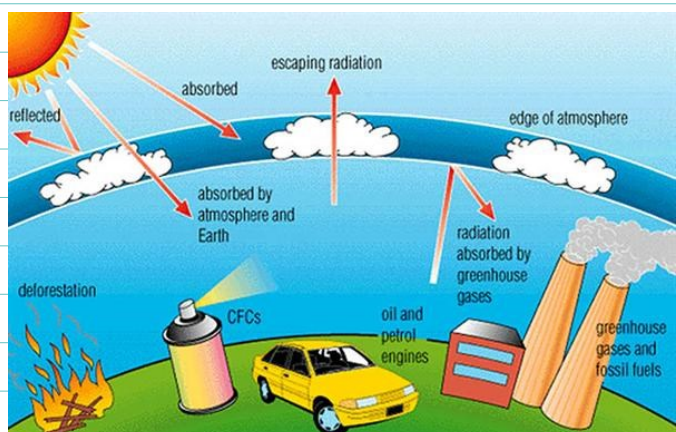
2. The greenhouse effect caused by pollution

-solar radiation

-global warming

-terrestrial radiation

-industrial activities, the traffic and the farms release a variety of gases, especially carbon dioxide. This gas remains in the atmosphere, its concentration grows and it retains more and more terrestrial radiation.



A real global warming

This accumulation of carbon dioxide in the atmosphere is alarming, because it leads to the increase of medium temperatures at a global level. The glaciers from the polar calottes are melting, leading to the rise of ocean levels, which would lead to catastrophic effects in areas with low shores (in countries such as Holland or Bangladesh). Desert areas would expand in Africa, and the south of Europe would be hit by drought.

Romanian Team



Renewable energies

Usage of renewable energies allows production of energy without the environment being polluted and without destroying natural resources of the planet.

The sun

Solar heat can be used in order to produce energy. In order to capture this caloric radiation, solar panels are used. This energy can be used directly, for warming buildings or swimming pools, or indirectly, for producing electric

energy.

The water

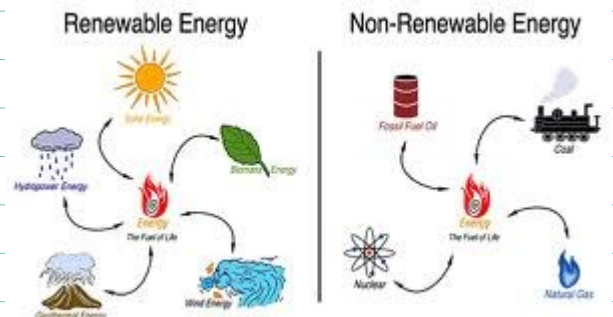
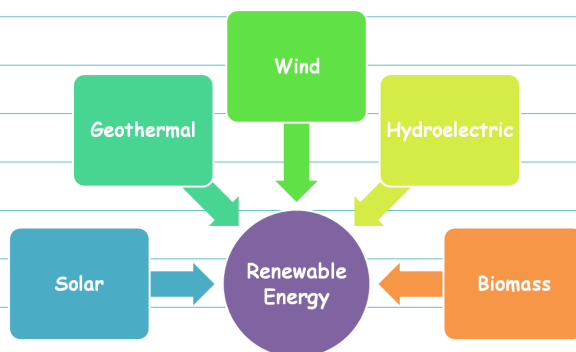
A hydropower station uses the water's falling force in order to produce electric energy. As there are no rivers with massive waterfalls, the man has built dams, for retaining water, which afterwards, through special tunnels, are lead to high power turbines; they produce electric energy.

The wind

The wind's force is used to put in motion the wind turbines, which produce, at their turn, electric energy. Most of the wind centrals are placed in areas with permanent winds.

The seas

There are stations which use the tides' power for producing electric energy. One of the most powerful and known station of this kind is the one in Rance, from France. But such centrals are very expensive.



Romanian Team

Legends of Portugal

The Legend of the Almond Blossom

Long ago, before the independence of Portugal, when the Algarve belonged to the Moors, there was a Moorish king who married a girl from northern Europe, whose name was Gilda.

This creature was so lovely, whom everyone called the "Beautiful North", and so no wonder that the king, copper-skinned, so brave and daring in war, wanted her for his queen.

Despite the parties that were common at that time, a sadness came upon Gilda. The richest gifts from her husband couldn't put a smile on those lips now discolored: the "Beautiful North" longed for his land.

One day, the king found Gilda in tears and sobs, and she confessed that all her sadness was due to not seeing the snow-covered fields, as in her own country.

The great fear of losing the beloved wife suggested a good idea to the king. He ordered that throughout the Algarve almond trees were planted, and in early spring, since they were all covered with white flowers.



The good king, anticipating the joy that Gilda would feel, called her:

- Gilda, come with me to the balcony of the highest tower of the castle and contemplate a lovely scenery!



Once at the top of the tower, the queen clapped and shouted with joy while seeing all the land covered by a white blanket, which she thought was snow.

- See - the king said smiling - as Allah is kind to you. Your desires are fulfilled!

The queen was so happy that she was soon completely healed. The sadness that was killing her slowly disappeared, and Gilda felt happy and satisfied with the king who loved her.

And, every year, in early spring, from the top of the tower she saw the beautiful almond white flowers, which reminded her of the snow-covered fields of her own country.

Portuguese Team



News from Portugal—The plastic bags problem

The Portuguese people are the Europeans that use more “light” plastic bags, reaching 466 per inhabitant and per year, a number which the Government intends to reduce to 50% this year and to 35% in 2016. From now on, the clients of many stores must find other alternatives to accommodate their purchases. It is intended to reduce the consumption of plastic bags, in which only one is used by 25 minutes, and the quantity of spoilt plastic that remains thereabout 300 years in nature, affecting animals, as fish that eat them by confusing it with food.



WHY REDUCE, REUSE, RECYCLE?

PAPER is the largest percentage of material thrown away.

A ton of PAPER made from recycled fibers instead of virgin fibers CONSERVES:



- 7,000 gallons of water
- 17-31 trees
- 4,000 kWh of electricity
- 60 pounds of air pollutants



WASTE LESS... RECYCLE MORE...LIVE WELL.

Idiomatic Portuguese expressions

“em Abril, águas mil”- In April thousand waters

“Gaivotas em terra, tempestade no mar”- sea-gull in earth, storming in the ocean

“águas passadas não movem moinhos”- The past waters doesn't move mills.

“em Agosto toda a fruta tem gosto”- In august all the fruit have taste

“com tempo tudo se cura”- With time everything weels

“Quem semeia ventos, colhe tempestades”- Who spreads winds catches storms

“Boda molhada, boda abençoada”- Wet wedding, blessed wedding

Climate change is an opportunity for a new economic path for Bulgaria

The team Newbusiness.bg talks with experts about what climate changes await us in Bulgaria in the near future and how to be prepared for them and use them in our favour.

What will be the weather like in Bulgaria in the coming decades and how to prepare for the changes?

International forecasts for Bulgaria show that the next three to five decades, if does not occur some major changes the temperature will rise

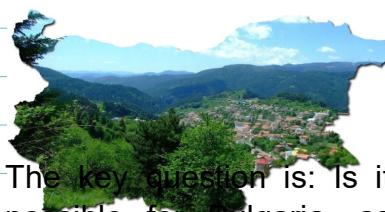


between 3 and 5 degrees. This au-

tomatically brings us out of the temperate climate zone with four seasons and sends us in a climate zone with very hot summers, long and prolonged drought, with many forest fires, desertification of arable lands, etc. Nature, as we know it in Bulgaria will change. Unfortunately, rapid and sudden changes always lead to loss of



biodiversity, structural changes that are fatal for people, for animals and plants. This is the most pessimistic scenario. But we must consider what we can expect.



The key question is: Is it possible for Bulgaria, as an independent country to do something to will not happen. And the answer is: No, not possible. But is it really important for Bulgaria to participate actively at the global level to adopt clear policies and short-term binding targets? Yes, it is possible and very important to do it! And it is very important because our geographical position falls in the geographical risk zone. We will be most visibly affected and we all will be victims, without exception. In northern latitudes, where it is very cold, rising temperatures will lead to milder winters, warmer summers will be more suitable for agriculture, people will be happy with this. In the tropics,

where there are hot and rainy season, there will be drastic changes.

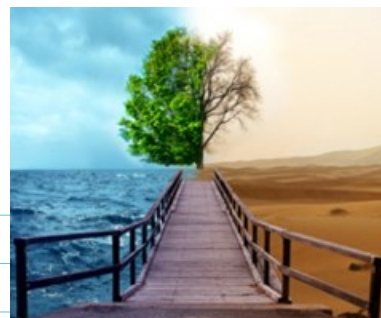
When we talk about climate changes, we should not forget that this is primarily a policy in the longer term.



Nowadays, it is important for Bulgaria as well for the whole world.

The future of the new economy is based on high-tech industries, which do not waste but save energy, as well they base their needs on renewable, free energy. The risk of climate change in Bulgaria is also an opportunity for new economic development and new economic path.

The topic of climate change is scary sometimes, but I appeal to young people to accept this challenge as a vast opportunity for a better world in which they live, and dictate and change the rules. Young people all over the world are those that actively change the situation and solve the problems. They can demand the business and the politics to change. The future is in their hands.



APPEAL FOR A GREEN SMILE, GREEN DAY, GREEN FUTURE!

Environmental protection is a mission of the whole society and affects all of us - together and individually as citizens - as individual attitude and understanding of the importance of nature and the power of resources that it gives us!

JOIN US! SUPPORT THE GREEN CAUSE BY:

NSave energy and use energy-efficient light bulbs;
NTurn off the lights when not needed. This practice saves 400 kg of CO₂ emissions per year from each home;

NDo not leave electrical appliances in **stand-by mode**;

Walk, ride a bicycle or use public transport. Every liter of fuel burned by the vehicle leads to release of 3 kg CO₂ in the atmosphere!;

NDo not drive at high speed! Moving over 120 km/h increases fuel consumption by over 30% compared with speed at 80 to 110 km/h;

NRefuse plastic bags at purchase in the shop;

NReduce the volume of waste before disposal by crushing paper waste, plastic bottles and cups;

NUse separate disposal of waste! Recycling 1kg aluminum saves 9 kg of greenhouse gas emissions, 1 kg recycled plastics saves 2 kg of greenhouse gas emissions and 1 kg recycled paper saves 1 kg of CO₂ emissions;

NCompost organic waste at home and in school to get fertile soil;

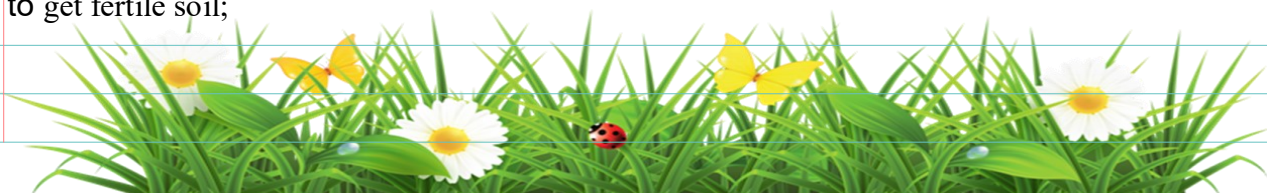
NUse textbooks and notebooks from 100% recycled paper;

NAvoid using perfumes and deodorants in aerosol dispensers;

NDecrease level of heating! Lowering the temperature by 1 °C will reduce the electricity bill by an average of 10%, which will save 300 kg of CO₂ emissions annually per household.

Participate in eco initiatives, be informed and inform others about the "green alternative"!

Bulgarian team



Hungary sends tanks to rescue thousands of people from snow trap

Tanks and other military vehicles with caterpillar tracks have been dispatched to rescue motorists as trucks jackknifed causing huge traffic jams on the main motorway that links Budapest and Vienna.

"The situation is most critical on the M1 motorway where hundreds of cars are stranded in the snow, most of them for 18-20 hours now," Reuters cites Marton Hajdu, spokesman for the National Directorate for Disaster Management.



Thousands of people have been forced to spend the night in their cars or roadside buildings after a snowstorm paralyzed traffic on the major Hungarian highway. A Reuters photographer travelling with a rescue convoy said high winds had caused snowdrifts on the motorway up to a meter (3 feet) high. Those who happened to be waiting out the snowstorm at home were left shivering as the electricity and heating went off. In total up to 100,000 of Hungarians have been suffering from cold in their apartments.

Attila, the hun`s funeral (453 AD.)

Jordanes says: "The greatest of all warriors should be mourned with no feminine lamentations and with no tears, but with the blood of men." His horsemen galloped in circles around the silken tent where Attila lay in state, singing in his dirge, according to Cassiodorus and Jordanes: "Who can rate this as death, when none believes it calls for vengeance?"

Then they celebrated a strava (lamentation) over his burial place with great feasting. Legend says that he was laid to rest in a triple coffin made of gold, silver, and iron, along with some of the spoils of his conquests. His men diverted a section of the river, buried the coffin under the riverbed, and then were killed to keep the exact location a secret.



Europe floods: Hungary Danube set for record high

Hungarians have been warned to prepare for their country's worst floods ever as the Danube is set to reach record levels this weekend.

"We are facing the worst floods of all time," said PM Viktor Orban.

Europe's second-longest river is set to hit unprecedented levels in the capital Budapest in the next few days.

A state of emergency has been declared, and thousands of volunteers have

been working to reinforce the banks of the swelling river. Water levels are set to reach 8.85m (29ft), some 25cm (10in) higher than the Danube's previous record high in 2006.

Emergency workers have set up camps along the river as residents packed sandbags around their homes amid an atmosphere of concerned expectation, says



the BBC's Nick Thorpe in Budapest.



Hungarian Expression related to environment

Vizgyujto terület gazdalkodas –river basin management

Vesztarozok- emergency flood preservoir

Homokzsak- sandbag

Buzgar- water break-trough under dykes

Delibab- mirage

Villamarviz- flash flood

Szőlőkabóca- American grapevine leafhopper

Teraszos muveles- terrace farming

Mobilgat- mobile dyke

Invaziv fajok- invasive species

Word search

E	J	K	L	G	A	S	E	S	W	F
M	N	O	P	Q	R	S	T	U	V	U
Q	Z	V	B	S	E	R	Z	Y	X	M
A	F	Y	I	Q	W	E	R	T	Y	E
S	G	H	M	R	J	T	R	E	E	S
D	X	A	N	H	O	I	O	P	M	L
F	C	A	T	P	X	N	P	O	I	U
O	X	Y	G	E	N	V	M	B	N	M
Z	V	Y	E	F	D	S	I	E	K	J
O	A	B	C	D	E	F	G	H	N	L
N	C	H	E	M	I	C	A	L	S	T
E	A	Z	Q	W	E	R	T	Y	D	F

Tasks:

- find the 6 words scattered across it
- find the extra word for bonus points!
- give an appropriate definition for each found term.

Rebus guidance

words to be found:
gases, fumes, trees,
ozon, oxygen,
chemicals,
ENVIRONMENT*
(extra word)

definitions of the found words:

gases – all of the substances in gaseous form which can be found in the atmosphere

fumes – extremely polluting gases and smoke

trees – a woody perennial plant, typically having a single stem or trunk growing to a considerable height and bearing lateral branches at some distance from the ground

ozon – an important gas which is found in the atmosphere. It helps in lowering the Sun's disastrous effects (heating)

oxygen – a gas which is used by people and animals in order to live and which is produced by plants

chemicals – solid/liquid/gaseous substances that aren't good for the environment

ENVIRONMENT – the air/land/water in which people/animals/plants live (or as a short form: everything that surrounds us)

Luca Gruia—Romanian Team



How do the climate changes affect the bees

It is spring. After long days of gloomy days the sun appeared. In the apiaries there is lots of noise, the bees are leaving the hives and they are enjoying the sun.

who is an apiarist.



While I was watching their hurry with which they bring the pollen on their little feet back to the hives, I wondered what would happen if these creatures wouldn't exist anymore.

Einstein issued a theory according to which from the moment when bees are gone, the man as a species has to live only four more years, and then it disappears. I wondered how much truth was in this theory.

Otherwise, I asked my father,

Maria: What are bees?

The apiarist: Even if you see them so fragile, bees are very strong creatures, with an enviable way of organization of their life in the hives for any collectivity. In a family there can be up to 50 – 60 000 individuals. They have a precise organization, in which every member has a well-defined role, from the hardest tasks, about cleanliness in the hive, to the bees which bring food and water, from the ones that prepare it and feed the sapling, to the drones which have their role as well, and finally to the mother bee which is the queen of the hive.

Maria: Can bees really disappear?

The apiarist: Even if they're so strong, as I told you before, bees have a lot of enemies. Firstly, the natural ones, for example birds, mammals and specific diseases, then, much more aggressive, factors determined by the man's influence.

Maria: Which ones are these?

The apiarist: As I said before: birds, especially prigoria, sparrows, but rodents as well,



such as rats. These enemies, even if they affect the bees' population, aren't some powerful pests, such as the ones generated by the man's action.

Maria: Which are the greatest problems that affect the bees' population?

The apiarist: There are a lot, but we can group them:

-1. Climate changes due to the economic-industrial activities

-here we can remark that there's a later blooming of plants, and a much shorter period of blooming

-a quick alternation of temperatures, from cold to hot and opposite, long periods of rainy weather, with periods of drought

-2. Chemical treatments of crops

-intensive agriculture lead to using chemical substances, especially insecticides and herbicides, at large scale, which caused the extinction of some species of plants, realization of monocrops (crops which aren't developed enough), as well as

direct poisoning of bees, or poisoning of the air, soils and waters.

-extensive agriculture lead to disappearance of some areas with spontaneous, diverse vegetation, with a continuous blooming whilst the bees could find food during the whole hot season

Maria: What has to be done?

The apiarist: Apiculture must be done with a lot of love for bees, not only for the material interest, and apiarists submit big efforts for protecting the force of bees by treatments which they apply against specific diseases, by artificial feeding granted during the period when bees can't reap, by creating of optimum conditions for wintering. Even so it looks like their efforts are useless, because the population of bees is in decrease both at national and worldwide levels. The triggering of an alarm signal at a worldwide level is necessary, and so are sustained efforts, in order to protect this little wonder of the nature, the bee, and in order to not reach the situation of verifying the veracity of Einstein's theory.

Maria stoica—Romanian Team



The test of the unbeatable

Are you ready for a short test... full of traps?

30 questions for becoming unbeatable and to amaze your parents and friends.

1. True or false? A quarter of the planet's population doesn't have access to water.	correspondingly for recycling.	endangered?
2. How many limits of evaluation of the quality of the air are mentioned in Romania's legislation?	12. Which devices allow capturing solar heat, in order to be transformed into energy?	23. Which activity uses more water: a bath or a shower?
3. Which waste should be thrown in the blue dumpsters?	13. With which organ of the human body can the forest be compared to, for its capacity of filtering the air?	24. From five letters, the natural element used by a hydropower station for producing energy.
4. Name the phenomenon through which the internal heat of a planet is transformed in energy: -a. geothermics; -b. biomass; -c. the force of the sea's waves.	14. Which atmospheric gas has the symbol CO2 ? - a. nitrogen; -b. carbon; dioxide -c. hydrogen.	25. Where are 97% of the continental freshwater resources of Terra found? -a. in glaciers; -b. in rivers; -c. in groundwater.
5. Which gaseous layer protects the planet from the Sun's dangerous radiations?	15. How much percent of the terrestrial surface is covered by waters?	26. Name the agriculture which uses natural fertilizers.
6. Which plant, used in the ancient Egypt as a prop for inscriptions, is endangered today?	16. True or false? Pollution doesn't have severe consequences against the human body.	27. Which continent suffers the most because of the lack of water?
7. Name 5 natural elements used for producing renewable energy.	17. Which devices are used for producing energy by using the force of the wind?	28. From five letters, endangered Asiatic bear because of the frequent deforestings!
8. True or false? The most part of the Terra's water supply is freshwater.	18. True or false? Euro rules refer to pollution.	29. Which process allows production of energy from agricultural waste? -a. water falling; -b. biomass; -c. geothermics.
9. Which percent of the planet's surface is subject to the phenomenon of desertification? -a. 5%; -b. 25%; -c. 55%.	19. Which state is responsible for a quarter of the carbon dioxide's emissions in the atmosphere? -a. France; -b. China; -c. USA.	30. Which respiratory disease is severely affected by inhalation of sulphur dioxide?
10. What other name does the planet Terra have?	20. How are the natural energetic resources called, which renew permanently?	<i>Skip to the next page for the correct answers and the score.</i>
11. From two words, activity which makes that waste is collected	21. True or false? The greenhouse effect is a phenomenon caused by pollution.	
	22. In which Asian state the Bengali tiger is	

Correct answers

- | | | |
|---|--|--|
| 1. True. | 10. The Blue Planet. | by the pollution. |
| 2. Two (upper and lower). | 11. Selective collecting. | 22. In India. |
| 3. Paper and cardboards. | 12. Solar panels. | 23. A bath (approximately 150 litres), compared to a shower (approximately 60 litres). |
| 4. Geothermics. | 13. The lung. | 24. Water. |
| 5. Ozone layer. | 14. Carbon dioxide. | 25. In groundwater. |
| 6. Papyrus. | 15. 70%. | 26. Ecologic agriculture. |
| 7. Water, solar heat, the wind, the energy of the sea's waves and the internal heat of Terra. | 16. False. Pollution causes respiratory problems and irritation of the eyes. | 27. Africa. |
| 8. False. 97% of the water on Terra is salty water. | 17. The windmills. | 28. Panda. |
| 9. 25%. | 18. True. | 29. Biomass. |
| | 19. The United States of America (USA). | 30. Asthma. |
| | 20. Renewable. | |
| | 21. False. It is mostly a natural process, accentuated | |

Therefore, what's your score?

Between 0 and 10 correct answers:

You can obtain, certainly, a better score...

Between 11 and 20 correct answers:

It is a good beginning, but you can progress further...

Between 21 and 30 correct answers:

It is good, especially if you answered correctly all of the 30 questions...



Ecological calendar

2 nd February – Worldwide Day of Wet Areas, Ramsar convention

15th March - 15th April – the month of the Moon

22nd March – Worldwide Day of Water

23rd March – Worldwide Day of Meteorology

31st March – Earth Hour

1st April – Worldwide Day of Birds

4th April – International Day of Animals without a shelter

4th April – International Day of mines' awareness and of assistance in mining actions

7th April – Worldwide Day of Health

22nd April – Earth Day

24th April – Worldwide Day of Protecting Laboratory Animals

10th May – Day of Birds and Trees

22nd May – International Day of Biodiversity

24th May – European Day of Birds

5th June – Environment Day

8th June – Worldwide Day of Oceans

17th June – Worldwide Day for Fighting Desertification

11th July – Worldwide Day of Population

9th August – International Day of Zoos and Parks

29th August – International Day against nuclear tests

1st September – Day of Danube Delta's Biosphere Reservation

16th September – International Day of the Ozone Layer

18th September – International Day of Geologists

23rd September – Worldwide Day of Cleanliness

25th September – International Day of the Aquatic Environment

26th September – Worldwide Day of Carpathian Mountains

1st October – Worldwide Day of the Habitat

4th October – Worldwide Day of Animals

10th October – Worldwide Day of Reducing Natural Disasters

16th October – International Day of Nutrition

17th October – International Day of Eradicating Poorness

31st October – International Day of Black Sea

10th December – Worldwide Day of Human Rights

11th December – International Day of the Mountains

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Romanian Team

Endangered species—5 species of endangered animals

The polar bear.

This extraordinary swimmer is endangered in arctic areas, because of the global warming and because of the huting (for fur).

The grizzly bear.

This brown bear is one of the biggest omnivorous mammals on Terra. It almost dissapeared because their habitat is destroyed and because of excessive hunting.

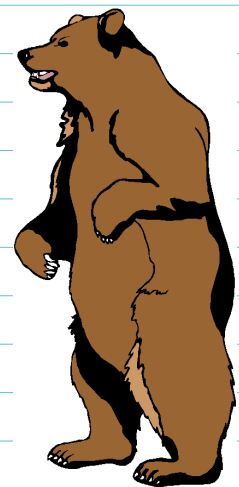
Beluga. This animal becomes white after the age of 6 years. Beluga eat at great dephts, with fishes and crustaceans. It is endangered because of the fishing and because of the pollution of the waters which this animal uses as a shelter in order to grow its babies.

The Bengal tiger. It is the biggest feline! Tigers are endangered because of excessive hunting and

because of the destruction of natural forests. In India these tigers don't live in wild areas anymore, they can only be found in the great natural reservations.

The great Panda.

Panda bears aren't threatened by hunting. But, because of deforesting, these lonely animals don't have a place where to reproduce and where to grow up their babies.



5 species of endangered plants

The Virginia birch. It can be found in wet areas of the american state Virginia.

The Drury orchid. This plant was found in India, before its habitat was destroyed by fires. Today it is still grown only in greenhouses.

The Chilean gooseberry. This alpine species lives in high mountain areas from Chile.

The Egiptean papyrus. This plant grows through the reeds of Nile's marshes.

The gum tree from Queensland. This 40 metres tall tree dissapeared from Australia's eastern coasts.

The planet is ill

-desertification. Over 40% of the planet's terrains are affected by the phenomenon of desertification, firstly because of overcrowding and intensive agriculture.

-agricultural plants. 75% of the varieties of agricultural plants that were planted in the year

1900 don't exist anymore today. It is estimated that the total number of disappeared species of plants in the last 25 years is somewhere to 50 000 species. Today we base our caloric consumption, in proportion of 90%, on only 20 species of agricultural plants, out of which only 4 (rice, corn, wheat and potatoes) ensure half of the caloric requirement of the human-

ity.

-forests. 13 million hectares of forest disappear every year. That means almost 20 football terrains a minute. FAO (Food and Agriculture Organization) qualified this rhythm of cutting down forests as "alarming"!

-animals. A mammal out of 4 and a bird out of 8 are today in danger of extinguishment. It is estimated that no less than 16 000 species of animals are today in this severe situation.

-water resources. 13% of the globe's population doesn't have access to drinkable water

-global warming. Because of

the greenhouse gases, the medium global temperature could rise from 1.5° C to 6° C during a century.



Who is the most exposed to atmospheric pollution?

Children pedestrians

A children is much more fragile when he is exposed to polluted air, because his respiratory system is still developing. Because of their low height, children and babies are more exposed to exhaust gases (because their mouth and nose are closer to the issuer source).

Cyclists

As any other auto driver, a cyclist inhales the exhaust gases from the cars in front of him. It would be very indicated that cyclists use special masks, which filtrate the polluting gases. But this solution is not enough,

because there are still some very small particles, very toxic ones, that can surpass the filter of the mask, the cyclist being put at the risk of inhaling.

Pedestrians with asthma and smokers

As the air in cities is more polluted by auto traffic, so is the health of asthma patients, of persons with pulmonary and heart diseases, of the smokers as well: asthma attacks become frequent and incurable diseases appear, such as cancer. These persons are subject to a maximal exposure to pollution caused by auto traffic, even if they walk on pavements, or if they wait,

for example, in a station for common means of transport.

Drivers

In big cities, where traffic is very intense, even drivers are exposed to toxic gases emanated by cars driving in front of them. Also, a driver could inhale the exhaust gases of his own car, when he stays stationary for too long in the traffic, and the toxic gases invade the cabin of the car.

Elderly pedestrians

They are more exposed as their immune system is more fragile.

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Some simple tricks through which we can help the environment

-Sort the waste. Half of the content of your trash bin can be recycled. This applies to bottles, jars, paper and cardboards from different packagings, canned food cans and aluminium doses. In order to be recycled, they mustn't be mixed. That's the reason for which collective selection containers are present. Recycling is important. For example, for producing a tone of paper, 16 mature trees are cut down. Recycled paper is made exclusively from paper waste, without cutting down anymore trees.

-Don't throw the trash anywhere! In Singapore, for example, you will get a fine if you dirty public spaces. In our country you are not fined, but it is obvious that the place of the waste is in the trash bins, not on the

streets or in the park.

Batteries contain particular substances, very dangerous for the environment. Don't throw them together with other recyclable waste!

-Save the energy. In order to save energy, you can turn off the lights in the room that you just left, you can unplug the chargers of the electronic devices from the sockets and you must not leave your apparatus in "stand by" mode.

-Save the water. Here's how: don't let water flow senselessly when you wash the dishes or when you brush your teeth. Choose to take a shower instead of a bath (shower = 60 litres of water, bath = 150 litres of water)

-Reduce the noise. 2 out of 3 Romanians are

exposed to a level of noise which is considered above the allowed limits, that's why they have health problems related to the noise. Almost 10% of the teenagers have hearing problems due to the audio headphones. To avoid such diseases, it is enough to listen to the radio, the music or the telephone at a normal level of noise. In order to not disturb your neighbors, you can isolate some spaces, covering your walls with squares of felt. It is recommended to not run through the house or scream when you play with your friends.

Romanian Team

Did you know that?



Why do we recycle glass?

- glass can be recycled endlessly without losing its qualities?
- by recycling a tone of glass 1.2 tones of raw materials (soda, sand, feldspar) are saved?
- Glass needs 1 000 000 years in order to disintegrate in small pieces?

Why do we recycle plastic?

- natural disintegration of plastic in the environment requires over 500 years, due to the materials in its structure?
- From 10 recycled PETs a T-shirt or one square meter of carpet can be produced?
- From 50 PETs a sweater can be made?
- With every tone of recycled plastic, about 700 – 800 kilograms of oil are saved?

Why do we recycle paper?

- at the printing of a great distribution newspaper over 3000 m² of wood are used, which means 1500 trees with an age of 50 years?
- newspaper contain recycled paper in a proportion of 50%?
- a 15 year old tree is needed for producing 700 paper bags?
- every tone of recycled paper can save 17 trees and 95% of the air's pollution?
- paper and cardboards can be recycled only for 10 times?
- a family uses yearly a quantity of paper equal to 6 trees?

Why do we recycle metals?

- aluminium is 100% recyclable?
- every second 630 boxes of steel are recycled?
- a TV can work for 3 hours continuously by using the saved energy of a recycled aluminium box?
- a tone of recycled steel means 1 tone of saved iron ore?



Did you know that?

-it is illegal to throw away electric and electronic equipment waste together with garbage?

-if you leave your computer in stand by mode for a night, it will consume the same amount of electric energy as a microwave when warming a portion of food?

-the most powerful fridges of today (A+++ energetic class) use only 25% of the energy necessary for a fridge produced in 1990?

-new washing machines use nowadays 44% less energy and 62% less water than the ones produced in 1985?

-in the structure of a cell-phone, you can find: ABS-PC plastic 29%, silicone plastic 10%, BFRs plastic 1%, ceramics 16%, copper 15%, other types of plastic 17%, alloys 3%, nickel 1%, zinc 1%, cadmium, silver 1%, lead, gold, palladium, manganese, under 1%, which are very polluting for the environment?

