

THE ENVIRONMENT (courtesy of A.Rozkošná)

1. **Brainstorming. What are the main environmental problems of today? Discuss it in pairs and make a list.**



2. **SPEAKING. Work in pairs. Each student gets a picture. Don't show your picture to your neighbour. Describe what you can see in the picture. The other one should guess what ecological problem you are describing.**

Useful Vocabulary:

environment (n) – životní prostředí
global warming (adj+n) – globální oteplování
sea levels rise – hladiny moře stoupají
greenhouse effect – skleníkový efekt
carbon dioxide – oxid uhličitý
hole in the ozone layer – díra v ozonové vrstvě
surface of the earth – povrch země
ultraviolet radiation (adj+n) – ultrafialové záření
CFCs (chloro-fluoro-carbons) – freony
to trap heat in the atmosphere –
zadržet teplo v ovzduší
aerosol can (n+n) – rozprašovač, sprej, aerosol
to cut down rainforests (v+n) – kácet deštné pralesy
to turn to desert (v+n) – změnit se v poušť
fertilizers and pesticides (n) – hnojiva a pesticidy

animal species (n+n) – živočišné druhy
factory chimney (n+n) – tovární komín
power station (n+n) – elektrárna
waste / litter disposal (n+n) – zbavení se odpadu
to sort out waste (v+n) – třídít odpad
dump (n) – skládka
acid rain (adj+n) – kyselý déšť
unleaded petrol (adj+n) – bezolovnatý benzín
to pollute (v), pollution (n) – znečišťovat, znečištění
to generate solar / wind / water power
- vyrábět solární / větrnou / vodní energii
renewable resources (adj+n) – obnovitelné zdroje
to recycle (v), recycled (adj) – recyklovat, recyklovaný
bottle bank / can bank – kontejner na láhve / plechovky
dustbin (n) – popelnice

3. **Get into groups with people who have the same picture. Try to identify the ecological problem the picture represents and describe it in a 3-4 sentences. What are its causes and effects? Can you see a solution? Then read your short description to the whole class.**

You can use some of these phrases:

This picture shows / illustrates the problem of ...

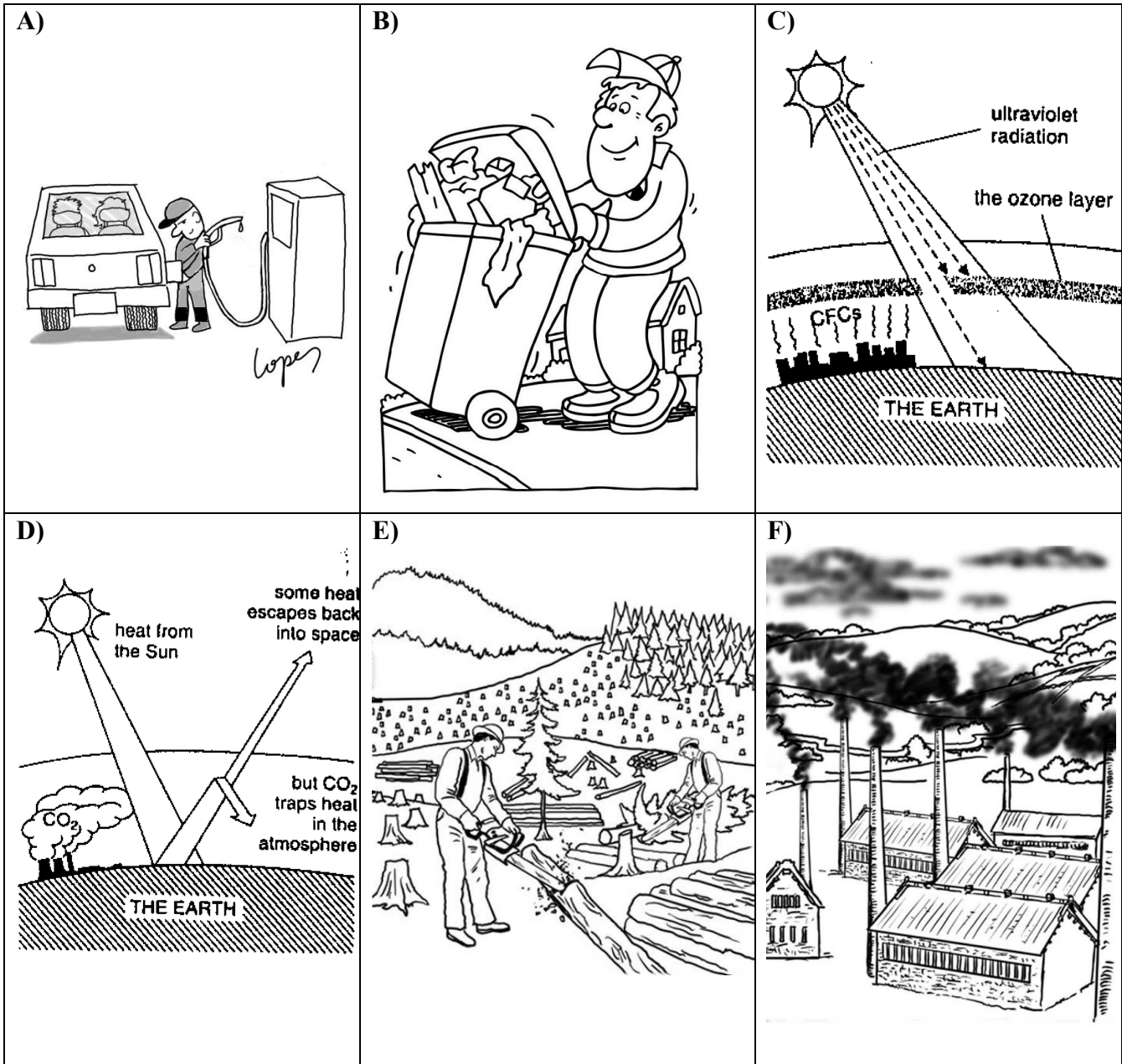
This problem is caused by / results from ...

*This leads to / causes / results in ...
(Due to ... Because ... Therefore ...)*

*The possible solution could be ...
/This problem could be solved by ...*

READING

4. Read the text about the environment quickly and match the paragraphs with the pictures. Then think of possible titles for these paragraphs and put them under headlines.



Source: www.edupics.com

5. Synonyms - words that mean the same.

Read the text again. Find synonyms of these words.

Example: researchers - scientists (Par. 1, line 1)

- Par. No 1)** lack of rain -
to become liquid -
gradually -
- 2)** destroy -
detected -
fridges -
- 3)** quantities -
land -
die out -

- 4)** huge -
main -
toxic -
- 5)** providing -
electric power -
turn round -
- 6)** garbage -
lowers -
made -

THE ENVIRONMENT

<p>.....</p> <p>Scientists say the temperature of the earth could rise by 3°C over the next 50 years. This may cause drought in some parts of the world, and floods in others, as ice at the North and South Poles begins to melt and sea levels rise.</p> <p>Global warming is caused by the greenhouse effect. Normally, heat from the sun warms the earth and then escapes back into space. But carbon dioxide and other gases in the atmosphere trap the sun's heat, and this is slowly making the earth warmer.</p>	1)
<p>.....</p> <p>The ozone layer is a layer of gas high above the surface of the earth that helps to protect it from the sun's ultraviolet radiation, which can damage our skins and cause cancer. Scientists have recently discovered holes in the ozone layer, caused by substances called CFCs (chloro-fluoro-carbons).</p> <p>CFCs are used in refrigerators, aerosol cans and in the manufacture of some plastic products. Some companies now make aerosols that do not contain CFCs, and these are often marked 'ozone-friendly'.</p>	2)
<p>.....</p> <p>Rainforests help to control global warming because they absorb carbon dioxide. In recent years, large areas have been destroyed, as the trees are cut down for wood or burned to clear the land for farming. The burning releases large amounts of carbon dioxide into the atmosphere.</p> <p>Many rainforests grow on poor soils, and when they are cut down or burned, the soil is washed away in the tropical rains, so that the area may turn to desert. Many plant and animal species that live there could become extinct.</p>	3)
<p>.....</p> <p>Factories, power stations and motor vehicles pump large quantities of carbon dioxide and other waste gases into the air. This is a major cause of the greenhouse effect. A lot of petrol contains lead, which is very poisonous and can cause brain damage in children. Many people now prefer to use unleaded petrol.</p> <p>Some poisonous gases dissolve in water in the atmosphere and then fall to the earth as acid rain. Acid rain damages trees and buildings, and can kill fish in lakes and rivers. Rivers can also be polluted by industrial waste from factories and chemical fertilizers and pesticides used by farmers.</p>	4)
<p>.....</p> <p>Most of the energy we use today comes from coal, oil and gas. But these will not last for ever, and burning them is slowly harming the atmosphere. We need to look for other ways of supplying energy.</p> <p>Solar power is a way of using the sun's energy as heat or to make electricity. We can also use wind-power by building modern windmills that spin in the wind. There are several types of water-power: riverwater in mountainous areas can be used to generate hydroelectric power, and we can also create electricity from sea water flowing in and out with the tides.</p>	5)
<p>.....</p> <p>Recycling is the processing of used objects and materials so that they can be used again. About 60% of rubbish from homes and factories contain materials that could be recycled. Recycling saves energy and raw materials, and also reduces damage to the countryside.</p> <p>Glass, paper and aluminium cans can all be recycled very easily. Many towns have bottle banks and can banks where people can leave their empty bottles and cans for recycling. A lot of paper bags, writing paper and greetings cards are now produced on recycled paper.</p>	6)

**6. We are much aware now of the need to look after our environment.
But what can you personally do to protect it?**

Work in pairs. Ask and answer questions about waste and saving energy:

- a) Are there **litter laws** where you live? If so, how much do you pay for **littering** or illegal **dump**?
- b) What are some things that can **be recycled**? Why should we **recycle**? Do you **sort out waste**?
- c) Does the government make it easy or hard for people to **recycle**?
- d) Do you know how often **garbage** is collected in your neighborhood?
- e) Do you usually drink bottled water? Why or why not?
- f) Do you sometimes buy **environmentally-friendly** products? (e.g. with ecological packaging)
- g) What are some ways energy is **wasted**? Do you sometimes think about ways to save energy?
- h) Do you care about the **environment**?

Is there anything you yourself do to protect the **environment**?

Source: <http://iteslj.org/questions/>

7. Now look at this:

<i>We should use recycled paper.</i>	<i>If we use recycled paper, we'll save trees.</i>
	<i>If we don't use recycled paper, a lot of trees will be destroyed.</i>

Write at least one thing we should do and one thing we shouldn't do if we want to protect the planet. Use the typical grammar structures.

Example:

We should recycle paper.
We should ...

If we don't, we'll destroy forests.
If we don't, ...

We shouldn't throw away things.
We shouldn't ...

If we do, we'll pollute the environment.
If we do, ...



8. LISTENING.

Listen to the passage about ways of fighting pollution and conserving resources. Note the actions and their purposes.

Example: Action:

Recycle paper

Purpose:

TO

SO AS TO

IN ORDER TO

(„aby“)

save trees.

The actions	Their purposes
	to
	to
	so as to
	so as to
	in order to
	so as to
	to
	to

Source: Bates, Martin and Dudley-Evans, Tony: *Nucleus of General Science*. Longman 1990. Unit 11, Listening Practice 1.

9. Work in small groups. Discuss these points:

- How has the environment changed since you were a child?
- What environment would you like to live in?
- Which is more important, increasing people's standard of living, or protecting the environment?
- How much has chemistry contributed to the world's environmental problems? How can chemists help fight against the pollution?
- Do you think cars should be banned from city centers?
- What do you think of people who smoke cigarettes indoors?
- Should petrol for motorists be more expensive? What would be the advantages and disadvantages of this?
- Do you think global warming is real? Are you worried about global warming?

Lesson based on: Hipp, Harry. *Tell me, tell us*.

10. HOMEWORK: THE PASSIVE (TRPNÝ ROD)

Trpný rod se v angličtině používá velice často, obzvlášť v odborných textech.

Mechanismus trpného rodu spočívá v podstatě v tom, že si podmět s předmětem „prohodí místa.“

Věta v činném rodě (active):

Věta v trpném rodě (passive):

Podmět + aktivní sloveso + předmět →	Předmět + tvar slovesa + past participle (+“by“ podmět) „to be“ (3.tvar slovesa)
<i>The hunter killed the bear.</i> → <i>Lovec zabil medvěda.</i>	<i>The bear was killed (by the hunter).</i> <i>Medvěd byl zabit (lovcem).</i>

Trpný rod se používá, pokud nechceme vyjádřit, kdo udělal to, o čem mluvíme.

- **nevíme to:** *The bank was robbed yesterday.* - *Banka byla včera vykradena.*

- **nezajímá nás to:** *The cars are made in the factory.* - *Auta se vyrábějí v továrně.*

Pokud chceme vyjádřit původce děje, použijeme předložku “by“.

Hamlet was written by Shakespeare. - *Hamlet byl napsán Shakespearem.*

FORM/TENSE	ACTIVE	PASSIVE
infinitive	<i>to make it</i>	<i>to be made</i>
present simple	<i>she makes it</i>	<i>it is made</i>
present continuous	<i>he is making it</i>	<i>it is being made</i>
present perfect simple	<i>she has made it</i>	<i>it has been made</i>
past simple	<i>he made it</i>	<i>it was made</i>
past continuous	<i>she was making it</i>	<i>it was being made</i>
past perfect simple	<i>he has made it</i>	<i>it has been made</i>
future (will)	<i>she will make it</i>	<i>it will be made</i>
future (going to)	<i>they are going to make it</i>	<i>it is going to be made</i>
future perfect	<i>we will have made it</i>	<i>it will have been made</i>
conditional	<i>he would make it</i>	<i>it would be made</i>
past conditional	<i>she would have made it</i>	<i>it would have been made</i>
modal (must, can etc.)	<i>they must make it</i>	<i>it must be made</i>
past modal	<i>we may have made it</i>	<i>it may have been made</i>

Re-write the first sentence so that the meaning is the same, but the active becomes passive.

Example: *Africans are killing more rhinos these days.* → *More rhinos are being killed by Africans these days.*

a) They are destroying the rain forests in South America

The rain forests _____

b) Air pollution causes acid rain.

Acid rain _____

c) Humans have hunted whales for thousand of years.

Whales _____

d) In 1986, the nuclear explosion in Chernobyl polluted the atmosphere with radiation.

In 1986, the atmosphere _____

e) This year, they have caught too many tuna fish in the Mediterranean Sea.

This year, too many tuna fish _____

f) When we burn fossil fuels we produce CO₂.

CO₂ _____

g) Global warming will soon affect poor countries.

Poor countries _____

h) We can't stop global warming, but we can reduce its effects.

Global warming _____

i) We should make flying more expensive.

Flying _____

j) We are going to lose many species of animal forever.

Many species of animal _____

Based on: BBC Learning English.

Week 10 – Vocabulary – The Environment

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to recycle (v)	recyklovat
recycled (adj)	recyklovaný
bottle bank / can bank	kontejner na láhve / plechovky
dustbin (n)	popelnice
drought (n)	sucho
gradually (adv)	postupně
to damage (v)	zničit
large amounts / quantities (adj+n)	velká množství
to become extinct / to die out (v)	vyhynout
electricity (n)	elektrina
to spin in the wind (v)	otáčet se ve větru
to reduce (v)	snížit, zredukovat
soil (n)	půda
environmentally-friendly product	produkt šetrný k životnímu prostředí
fertilizer (n)	hnojivo
pesticide (n)	pesticid