

Name _____

Spaceship Earth

For millions of years we have known a world whose resources seemed unlimited. However fast we cut down trees, nature would replace them without help. However many fish we took from the sea, nature would restock it. However much sewage we dumped into the river, nature would clean it, just as she would clean the air, however
5 much smoke and fumes we put into it. Today we have reached the stage of realizing that rivers can be polluted beyond rescue, that seas can be overfished and that forests must be managed and cared for if they are not to disappear.

But we still hang on to our primitive optimism about air and water. There will always be enough rain falling from the skies to meet our needs. The air can absorb all the pollu-
10 tion we care to put in it. Still less do we worry whether we could ever run short of oxygen.

The fact is, we are just beginning to meet the limits of the earth's capacity. We are beginning to have to watch what we are doing to things like water and oxygen, just as we have to watch whether we are over-fishing or over-felling. People are beginning to realize that earth is a spaceship with limited resources. These resources must be recycled,
15 either by nature or by man. Up to now, the slow pace of nature's own recycling has been enough. But if men, in ever larger numbers, are going to need more and more resources, the tempo of recycling will have to be quickened.

All we have is a narrow band of usable atmosphere, no more than seven miles high, a thin crust of land, and people can live on only one-eighth of the surface. We also only
20 have a limited supply of drinkable water, which we continually re-use. And in the earth, there is a supply of fossil fuels and ores which steadily decreases, billions of times faster than nature restores it. These resources are part of a complex system: The air helps clean the water, the water irrigates the plants and the plants help to renew the air.

I. Questions on the Text

20 BE

Answer the following questions in your own words as far as appropriate.

1. How did man treat Earth in the past? (10)
2. Why does the author compare our planet to a spaceship? Which similarities does the author mention? (10)

II. Comment

20 BE

Write a personal comment of about 80 words on the following topic:

"What I can do to protect the environment."

III. Grammar – Causes and effects of global warming

20 BE

Fill in the blanks with the correct form of the words in brackets.

Many scientists now agree that the world is warming. This warming _____ (to cause) by emissions of carbon dioxide and other greenhouse gases. Fossil fuel combustion is _____ (probable) one of _____ (important) sources of carbon dioxide - cars _____ (to emit) over 30% of all carbon dioxide per year. Even though critics say that global warming is a myth, it is a fact that there _____ (never, to be) more floods and storms than in the last decade. The results were disastrous: large coastal areas _____ (to flood) and thousands of people _____ (to lose) their lives. If nothing _____ (to do) to stop the trend, the water level of the oceans _____ (to rise) and considerable portions of land _____ (to inundate¹). That may sound _____ (threatening), but our politicians are already working on a solution. The Kyoto Protocol, which _____ (to create) to reduce CO₂ emissions, _____ (to sign) by 36 countries so far. Even as I am writing this article, efforts _____ (to make) to get the USA to sign the Protocol, too, thus committing the country, _____ (*Relativpronomen*) is one of the largest producers of greenhouse gases, to a reduction of these emissions. However, nature needs more than just a piece of paper signed by governments, it also needs people willing to protect it. Greenpeace, the best-known organization for the protection of the environment, _____ (to found) in 1970 - before that, protests against pollution _____ (to organize) by local environmentalist groups. But nature also has enemies: While _____ (devoted²) eco-fighters _____ (to chain) themselves to ancient trees, other Redwood trees _____ (to fell) by logging companies.

¹ hier: überfluten

² hingebungsvoll, engagiert

[Der Hörverstehenstext ist unter http://www.bbc.co.uk/worldservice/learningenglish/general/sixminute/2010/02/100218_6min_plastic_page.shtml zu finden]

1. Are the following statements true?

(4)

	true	false
The "Great Pacific Garbage Patch" is an organization that collects rubbish in the Pacific Ocean.		
The size of France is approximately 300,000 square kilometers.		
Plastic pollution is responsible for the death of many animals.		
Jan von Franeker works for a Dutch newspaper.		

2. Where does most of the plastic that is found come from?

(3)

3. Tick the correct answer(s). More than one may be correct.

(4)

a) If a product is biodegradable

- it will rot.
- it pollutes the environment for at least a thousand years.
- it's not made of plastic.

b) 40 million tonnes of plastic products

- are made every year.
- are used only once and then thrown away.
- are packaging materials.

c) Outside Kate's house

- paper, plastic and glass is collected for recycling.
- there's a recycling centre.
- paper isn't picked up.

4. What are the three Rs for packaging?

(3)

- Ø _____
- Ø _____
- Ø _____

5. Insert the correct words into the blanks.

(6)

“And finally Kate, let's go back to today's question. I asked you at the beginning of the show how many _____ there are in each _____ square kilometre of the ocean?” “And I went for c, 46,000.” “Well, depressingly Kate, you're right. There are _____ 46,000 pieces of plastic, on average, in each square kilometre of the ocean.” “What? 46,000 pieces of plastic? That's absolutely _____! How sad, and think of the damage that must be doing to the _____.” “But, _____, if we all try and reduce waste, and use less packaging, and recycle more, then maybe things will get better.”

I. Questions on the text

1.

- man overfished the seas
- dumped a lot of waste in rivers and streams
- polluted the air with smoke and fumes
- cut down a lot of trees

In the past, man didn't treat his planet too kindly. He overfished the seas, deforested large areas and released large amounts of exhaust fumes and pollutants into the atmosphere. Man also polluted the rivers, lakes and seas with waste and toxic substances.

2.

- only limited resources
- limited air supply (atmosphere)
- limited space (land)
- limited supply of drinking water
- limited energy supply (fossil fuels, resources)

The author compares Earth to a spaceship, because like such a craft our planet only has limited supplies and resources. The breathable air in a spaceship is limited, as is the amount of oxygen in our atmosphere. Our planet only has a certain amount of drinkable water, which needs to be recycled all the time, as does a spaceship. There is also only so much space to live on Earth, just as there is in a spacecraft. And finally, no spacecraft has endless supplies and energy, another analogy.

Fill in the blanks with the correct form of the words in brackets.

Many scientists now agree that the world is warming. This warming is caused/ is being caused (to cause) by emissions of carbon dioxide and other green-house gases. Fossil fuel combustion is probably (probable) one of the most important (important) sources of carbon dioxide - cars emit (to emit) over 30% of all carbon dioxide per year. Even though critics say that global warming is a myth, it is a fact that there have never been (never, to be) more floods and storms than in the last decade. The results were disastrous: large coastal areas have been flooded (to flood) and thousands of people have lost (to lose) their lives. If nothing is done (to do) to stop the trend, the water level of the oceans will rise (to rise) and considerable portions of land will be inundated (to inundate³). That may sound threatening (threatening), but our politicians are already working on a solution.

The Kyoto Protocol, which was/has been created (to create) to reduce CO₂ emissions, has been signed (to sign) by 36 countries so far. Even as I am writing this article, efforts are being made (to make) to get the USA to sign the Protocol, too, thus committing the country, which (*Relativpronomen*) is one of the largest producers of greenhouse gases, to a reduction of these emissions.

However, nature needs more than just a piece of paper signed by governments, it also needs people willing to protect it. Greenpeace, the best-known organization for the protection of the environment, was founded (to found) in 1970 - before that, protests against pollution had been organized (to organize) by local environmentalist groups.

But nature also has enemies: While devoted (devoted⁴) eco-fighters are chaining (to chain) themselves to ancient trees, other Redwood trees are being felled (to fell) by logging companies.

³ hier: überfluten

⁴ hingebungsvoll, engagiert

1. Are the following statements true?

(4)

	true	false
The "Great Pacific Garbage Patch" is an organization that collects rubbish in the Pacific Ocean.		x
The size of France is approximately. 300,000 square kilometers.	x	
Plastic pollution is responsible for the death of many animals.	x	
Jan von Franeker works for a Dutch newspaper.		x

2. Where does most of the plastic that is found come from?

(3)

it was thrown away on land

3. Tick the correct answer(s). More than one may be correct.

(4)

a) If a product is biodegradable

- it will rot.
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- are made every year.
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- are packaging materials.

c) Outside Kate's house

- paper, plastic and glass is collected for recycling.
- there's a recycling centre.
- paper isn't picked up.

4. What are the three Rs for packaging?

(3)

- reduce
- re-use
- recycle

5. Insert the correct words into the blanks.

(6)

And finally Kate, let's go back to today's question. I asked you at the beginning of the show how many **pieces of** plastic there are in each **average** square kilometre of the ocean? And I went for c, 46,000. Well, depressingly Kate, you're right. There are **apparently** 46,000 pieces of plastic, on average, in each square kilometre of the ocean. What? 46,000 pieces of plastic? That's absolutely **incredible!** How sad, and think of the damage that must be doing to the **sea life**. But, **hopefully**, if we all try and reduce waste, and use less packaging, and recycle more, then maybe things will get better.