




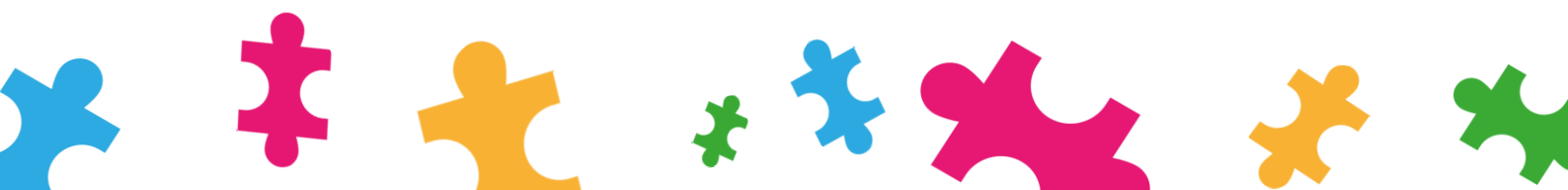
WebQuest

Introductory Level

We Are What We Breathe



TITLE OF THE WEBQUEST	We Are What We Breathe
LEVEL OF THE WEBQUEST	Introductory level
INTRODUCTION	
<p>What exactly is a WebQuest? A WebQuest is a research activity that allows you to learn new interesting things and acquire knowledge. At the beginning of each WebQuest you will be given some tasks and you will try to complete these tasks as a real scientist. You will search the Internet, where you will gradually find all the information that will help you fulfil your scientific tasks. Each WebQuest has different tasks and a different topic.</p> <p>This WebQuest is called "We are what we breathe". As the name suggests, we will focus on what we breathe - the air and its quality. Did you know that we inhale and exhale up to 20,000 times a day? And those 12,000 litres of air flow through our lungs every day? Have you ever thought about the air we breathe? In this WebQuest, you will find out if the air we need for our lives is polluted and what contributes to its pollution. You will also learn where the air pollution hits hardest and how polluted air affects our health.</p> <p>Your first task in this WebQuest will be to find answers to the following questions:</p> <ul style="list-style-type: none">▪ What is air pollution?▪ What causes air pollution? <p>Your second task will be to find out which states and cities are the most polluted and why.</p> <p>Your third, and final task will be to find out if polluted air has an impact on our health.</p> <div style="text-align: center;"><p>GET INTO IT!</p></div>	





TASKS

This WebQuest will make you an air pollution expert. You will be able to discuss air pollution and you will be able to tell a short story about it. The story about what causes air pollution, what is the air like on Earth and whether it depends on the quality of the air we breathe. Create the story about air pollution by completing the following tasks. Make short notes to tell the story at the end of WebQuest.

TASK 1

Find answers to the following questions:

- What is air pollution?
- What causes air pollution?

TASK 2

Find out which states and cities have the worst air quality.

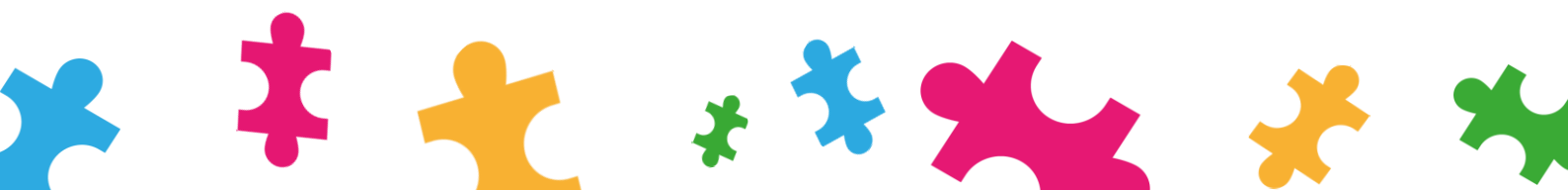
TASK 3

How does air pollution affect our health?

PROCESS

TASK 1

What is air pollution? What do you think?





Go to this website and find out how polluted air is defined by the electronic meteorological dictionary:

<http://slovník.cmes.cz/heslo/4775>

How is the air being polluted? Roughly speaking, air pollution is caused by a greater presence of harmful substances in the air. These harmful substances persist in the air for a long time, and this, of course, has effects on our health.

Watch the video below. It's about a brave young man who measures air pollution in different places. You will find out whether the air is cleaner in the mountains, in the cities or in the villages in winter.

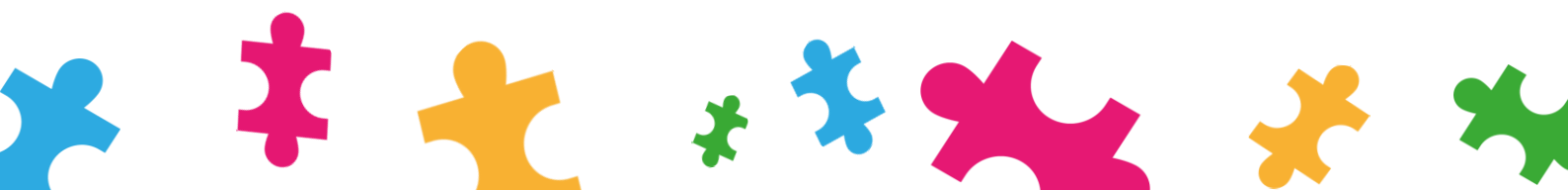
<https://www.youtube.com/watch?v=3mranwO4Zus>

Now let's find out what causes the bad quality of the air. In the following link, you will see the sources of air pollution.

https://www.mzp.cz/cz/zdroje_znecistovani_hlasusi

Now you know that air pollution is caused by man and nature.

A man destroys the air by burning solid fuels (coal, wood, etc.), using road and air transport, as well as the production of iron and chemicals, burning forests and we must not forget about thermal power stations, etc.





Natural sources of air pollution include, for example, forest fires or volcanic activity.



Cleaning of volcanic ash after a volcano eruption in the Philippines.

Your first task was to find the answers to these two questions. Can you answer them now in your own words?

- What is air pollution?
- What causes air pollution?

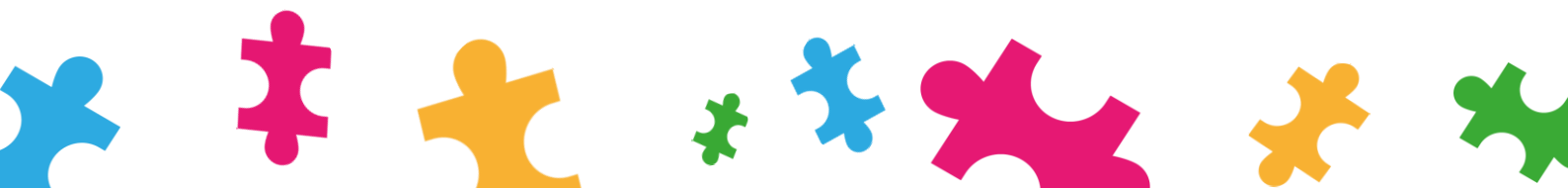
If you could not answer the questions, go through the first task again and write the answers on a piece of paper, it will help you to memorize the answers. And if you answered these two questions, you could move on to another task.

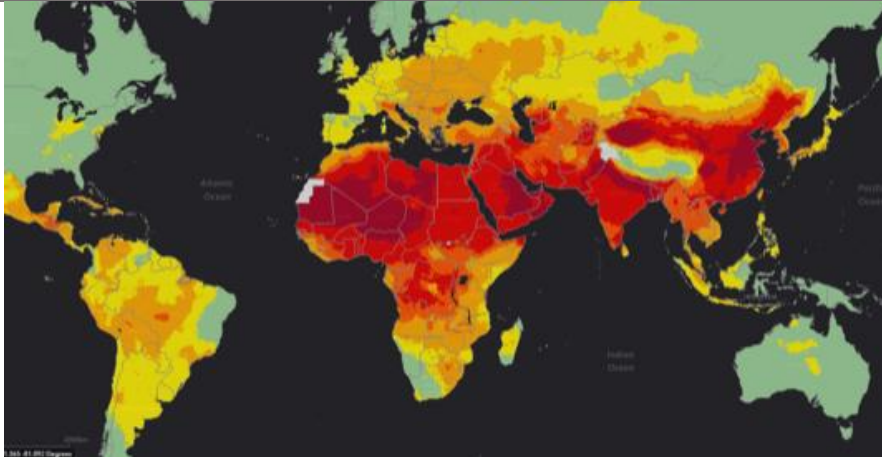


TASK 2

Find out which states and cities have the worst air quality.

Look at the following map and tell which two continents have the worst air pollutants. Focus on the dark red colour.





In the following link you will find out which cities have the worst air in the world. At the end of the article, you will see 'the air situation' in the Czech Republic.

<https://www.ikoktejl.cz/lide-a-priroda/tady-zit-nehcete-nejz necistenejsi-mesta-sveta/>

You did a great job!
We are approaching to the end of the WebQuest.
Just one more task.



TASK 3.

How does air pollution affect our health?

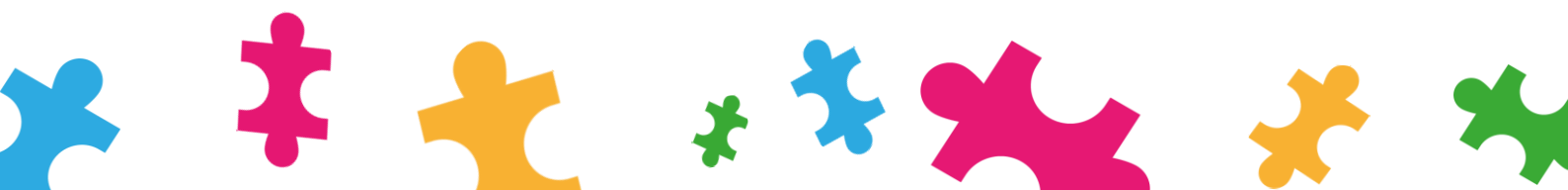
You already know that the presence of harmful substances, either from natural or human sources, creates the polluted air we breathe. But how does it affect our health? What serious disease can be caused by air pollution? Let's find out in the following video.

https://www.youtube.com/watch?v=4nTRSpYy52Y&ab_channel=whitefenyx

Air pollution may directly and indirectly affect the central nervous system (depression, memory problems). It also leads to respiratory diseases, worsens lung function, it can lead to premature death. According to the World Health Organization about 223,000 people worldwide died from lung cancer which was caused by polluted air.

In order to recall the information about air pollution you have learned today, watch the first 5 minutes of the following video.

https://www.youtube.com/watch?v=H_qYDiveOEM&ab_channel=%C4%8Cist%C3%A9nebe



This is the end of the WebQuest about air pollution. To prove that you are an expert on this topic, tell someone a story about it. Start with the definition of air pollution, continue with the causes of air pollution, name the places which suffer the most, and say how air pollution affects our health. If you can tell the story, it proves that you already know a lot about air pollution.

You also accomplished the last task of this WebQuest perfectly!



EVALUATION

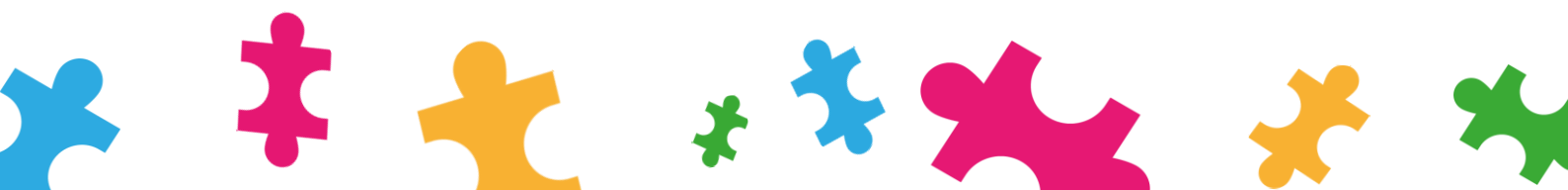
You have successfully completed several tasks in this WebQuest. Try to answer the following questions:

- Which knowledge from this WebQuest was just a repetition for you, because you already know the answer?
- What knowledge was new for you?
- Why should people have the knowledge contained in this WebQuest?
- If you had to say a few words about air pollution, what would you say?

CONCLUSION

In this WebQuest you gained new knowledge about air pollution. You already know that polluted air is caused by humans - for example, by burning coal, operating power stations, using vehicles. However, pollution is also caused by nature, such as volcanic activity, forest fires, sand transfer from deserts. You already know which cities on the Earth have the biggest problem with polluted air. You found out that breathing harmful substances in the air can cause lung diseases, lung cancer, even premature death. Inhalation of harmful air pollutants also has an adverse effect on the nervous system. And these are the reasons why we should care about the air we breathe.

Congratulations, your knowledge of polluted air is very good now!





GRETA

Challenge-based Learning in Primary Schools for Climate Change Awareness



Istituto Comprensivo "Don Milani" di Lanciano



Co-funded by the
Erasmus+ Programme
of the European Union

"The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein."

Project Number: 2020-1-EL01-KA201-078808

