

## Erasmus + Project “Play Green with US!”

### Prezentacje multimedialne

#### Developed by

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All project materials are available at [pgwu-erasmus.pl](http://pgwu-erasmus.pl)

### Wprowadzenie

Niniejszy zbiór materiałów edukacyjnych stanowi efekt prac zrealizowanych w ramach projektu **Play Green with Us!**. Inicjatywa ta zrodziła się ze wspólnego zaangażowania w troskę o środowisko oraz z przekonania, że edukacja jest najpotężniejszym narzędziem, jakim dysponujemy, by stawić czoła wyzwaniom ekologicznym XXI wieku.

W trakcie trwania tego partnerstwa uczniowie i nauczyciele z Polski, Grecji oraz Litwy połączyli siły, aby badać, dokumentować i prezentować najbardziej palące problemy środowiskowe dotyczące ich regionów. Dzięki połączeniu badań naukowych z kreatywnym cyfrowym storytellingiem, uczestnicy projektu stworzyli kompleksową bibliotekę wiedzy, która odzwierciedla zarówno specyfikę regionalną, jak i uniwersalne problemy ekologiczne.

### Zakres projektu

Prezentacje zawarte w tym raporcie koncentrują się na trzech kluczowych filarach naszego ekosystemu, z których każdy został przeanalizowany przez pryzmat innego kraju partnerskiego:

- **Polska: Jakość powietrza w Polsce.** Dogłębne spojrzenie na czynniki wpływające na warunki atmosferyczne, wpływ smogu na zdrowie publiczne oraz innowacyjne rozwiązania wdrażane w celu zapewnienia czystszej powietrza dla przyszłych pokoleń.
- **Grecja: Zasoby wodne.** Analiza kluczowego znaczenia gospodarki wodnej w klimacie śródziemnomorskim, ze szczególnym uwzględnieniem strategii ochrony, dbałości o ekosystemy morskie oraz zrównoważonego wykorzystania tego cennego zasobu.

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- **Litwa: Jakość gleby w regionie kowieńskim.** Szczegółowe badanie kondycji gruntów, analizujące skład gleby, wpływ rolnictwa i przemysłu na jakość ziemi oraz metody stosowane w celu zachowania bioróżnorodności w bałtyckim krajobrazie.

## Nasza misja

„Graj z nami w zielone!” to coś więcej niż tylko seria prezentacji; to świadectwo siły międzynarodowej współpracy. Dzieląc się swoimi odkryciami, nasi uczniowie nie tylko poszerzyli własną świadomość ekologiczną, ale także wzmocnili poczucie europejskiej jedności w obliczu globalnego kryzysu klimatycznego.

## Multimedia Presentations

### Introduction

This collection of educational materials is the result of work carried out as part of the "Play Green with Us!" project. This initiative was born out of a shared commitment to environmental care and the conviction that education is the most powerful tool at our disposal to face the ecological challenges of the 21st century.

Over the course of this partnership, students and educators from **Poland, Greece, and Lithuania** joined forces to investigate, document, and present the most pressing environmental issues affecting their local regions. By combining scientific research with creative digital storytelling, the project participants have created a comprehensive library of knowledge that reflects both regional specifics and universal environmental concerns.

### Scope of the Project

The presentations contained in this report focus on three critical pillars of our ecosystem, each explored through the lens of a different partner country:

- **Poland: Air Quality in Poland.** An in-depth look at the factors influencing atmospheric conditions, the impact of smog on public health, and the innovative solutions being implemented to ensure cleaner air for future generations.
- **Greece: Water Resources.** An exploration of the vital importance of water management in the Mediterranean climate, focusing on conservation strategies, the protection of marine ecosystems, and the sustainable use of this precious resource.
- **Lithuania: Soil Quality in the Kaunas Region.** A detailed study of terrestrial health, examining soil composition, the effects of agriculture and industry on land quality, and the methods used to preserve biodiversity in the Baltic landscape.

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## Our Mission

"Play Green with Us!" is more than just a series of presentations; it is a testament to the power of international collaboration. By sharing their findings, our students have not only expanded their own ecological literacy but have also fostered a sense of European unity in the face of the global climate crisis.

We hope this collection serves as an inspiration for other schools and communities to take active steps toward a greener, more sustainable future.

The slide features the European Union logo and the Erasmus+ logo. The main title is "The State of Air Quality in Poland". Below the title, it says "Szkola Podstawowa im. ks. Stefana Kardynała Wyszyńskiego w Sarzynie". On the right, there is a cartoon illustration of a woman. The background is a blue sky with clouds.

The slide features a horizontal bar chart showing the PM2.5 concentration in 50 of the most polluted cities in the European Union. Poland has 36 cities on this list, with 72% of them violating the EU's air quality target (second only to Bulgaria at 83%).

City	Country	PM2.5 (µg/m³)
Veliki Titovgrad	Bulgaria	45
Dimitrovgrad	Bulgaria	44
Chorzów	Poland	43
Zywiec	Poland	42
Rabka	Poland	41
Polkowice	Poland	40
Droeta Vidra	Bulgaria	39
Kraków	Poland	38
Nowa Ruda	Poland	37
Nowy Sącz	Poland	36
Pruszczyn	Poland	35
Gdów	Poland	34
Wodzisław Śląski	Poland	33
Poznań	Poland	32
Białka Bańki	Poland	31
Sucha Beskidzka	Poland	30
Radzionka	Bulgaria	29
Kawa Miedzianka	Poland	28
Pruszczyn	Poland	27
Strzelica	Poland	26
Sieroszewo	Poland	25
Pruszków	Poland	24
Dobin Lądka	Czechia	23
Nalbe	Poland	22
Zabrze	Poland	21
Radomsko	Poland	20
Tomaszów Mazowiecki	Poland	19
Niska Szała	Poland	18
Niepolomice	Poland	17
Puławski Tytułowski	Poland	16
Padova	Italy	15
Głogów	Poland	14
Dobruwa Górnicza	Poland	13
Olchowka Wola	Poland	12
Wieliczka	Poland	11
Chociszka	Poland	10
Smolnik	Bulgaria	9
Góra Chrobocza	Bulgaria	8
Nowy Tomaj	Poland	7
Bieliszka	Czechia	6
Brzeziny	Poland	5
Settlement Tomarica	Italy	4
Plastova	Poland	3
Leini	Italy	2
Mayenne	Poland	1
Chorzów	Italy	0
Wągrowo	Poland	0
Kielce	Poland	0
Sierpc	Poland	0
Sierpc	Poland	0

**The most polluted air in the most known Polish cities**

**Krakow** - heavy road traffic

**Katowice** - industry and mining cause air pollution

**Wroclaw** - heavy road traffic and old coal stoves in houses are the source of smog

**The least polluted places in Poland**

**Zakopane** - the mountains and the lack of other industry give Zakopane the best air quality

**Bielsko** - the forests and the large green area

**Szczecin** - coastal winds allow the air to disperse over the sea

**Effects of Air Pollution on the Environment**

- acid rain
- global warming
- ozone depletion
- soil contamination
- water pollution

**Health impacts of air pollution**

- Respiratory issues
- Cardiovascular diseases
- Headaches and anxiety
- Impacts on the reproductive system

**What does Polish government do to improve the air quality in Poland?**

**Climate Policy**

- improve air quality and reduce greenhouse gas emissions
- invest in research and development
- encourage energy efficiency in large family residential buildings

**Green Public Transport**

- encourage the reduction of the use of motorized fuels in public transport

**My Electric Car**

- program for the purchase or leasing of electric cars

Kliknij, aby dodać notatki

## Effects of Air Pollution on the Environment

- imbalanced ecosystems
- soil contamination
- acid rain (damage plants)
- Animals - reproduction may get damaged, and reproductive anomalies may occur.
- health and respiratory issues for animals
- global warming - natural calamities such as storms and cyclones.

### Health impacts of air pollution

Headache and anxiety (SO<sub>2</sub>)  
Impacts on the central nervous system (PM)

Irritation of eyes, nose and throat  
Breathing problems (O<sub>3</sub>, PM, NO<sub>x</sub>, BaP)

Irritation, inflammation and infections  
Asthma and reduced lung function (NO<sub>x</sub>)  
Chronic obstructive pulmonary disease (PM)  
Lung cancer (PM, BaP)

Cardiovascular diseases (PM, O<sub>3</sub>, SO<sub>2</sub>)

Impacts on liver, spleen and blood (NO<sub>x</sub>)

Impacts on the reproductive system (PM)

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**What can we do?**

- Replace old stoves with eco-friendly heating systems
- Use public transport or a bicycle instead of a car
- Plant trees and maintain green areas
- Avoid burning waste and low-quality fuels
- Invest in renewable energy sources, such as solar panels
- Insulate your home to reduce fuel consumption for heating
- Use electric or hybrid cars

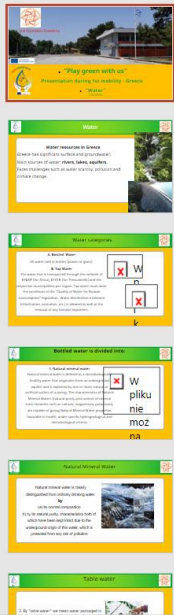
**Thank You for attention!!!**

Let's work together for cleaner air!!!

Kliknij, aby dodać notatki

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2nd Gymnasio Exedorou

Co-funded by the European Union

PLAY GREEN WITH US

- "Play green with us"

Presentation during 1st mobility - Greece

- "Water"

7/4/2025

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## Natural Mineral Water

27-3-2025

Natural mineral water is clearly distinguished from ordinary drinking water

by

- (a) its normal composition
- b) by its natural purity, characteristics both of which have been kept intact due to the underground origin of this water, which is protected from any risk of pollution

Kliknij, aby dodać notatki

## Water

### Sources of Pollution

- Industrial Waste
- Agricultural fertilizers and pesticides
- Municipal wastewater.
- Tourist growth and uncontrolled use of water resources

## Water

### Our measurements

Samples were collected from:

- The school's taps
- The settlements of Agia Sofia , a residential area that hosts a Roma community
- The local stadium of Ionikos

**Results**

- The main water quality indicators
- were within an acceptable price range

two sticks for measuring the basic parameters of drinking water

Co-funded by the European Union

## Quality of soil in Kaunas region

**Areas affected by erosion**

This map shows soil erosion intensity across Lithuania. Areas marked in red are most affected by erosion, indicating a higher risk of soil degradation. In the Kaunas region, certain zones are highlighted, suggesting the need for soil conservation measures.

[www.dirvozemioapsauga.lt](http://www.dirvozemioapsauga.lt)

**The impact of the Kaunas region**

<p><b>Observe the Earth and nature</b></p> <p>Check if the soil is healthy and plan how to improve it.</p> 	<p><b>Encourage people to contribute</b></p> <p>Residents can suggest ideas for beautifying the environment, and the municipality helps implement them.</p> 	<p><b>Plant trees</b></p> <p>Organize tree planting campaigns to make nature stronger.</p> 
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[www.socmodelis.lt](http://www.socmodelis.lt)



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