Erasmus + Project "Play Green with US!"

Developed by

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All project materials are available at pgwu-erasmus.pl

Scenariusze lekcji: Ochrona naszych zasobów naturalnych – woda, gleba i powietrze.

Nie ulega wątpliwości, że zdrowe środowisko jest absolutnym warunkiem przetrwania i dobrostanu wszystkich istot żywych na Ziemi. Ale co tak naprawdę oznacza ochrona naszej planety i dlaczego dbałość o wodę, glebę oraz powietrze jest dziś tak kluczowa?

Ekosystemy Ziemi są ze sobą ściśle powiązane. Czyste powietrze jest niezbędne przy każdym naszym oddechu, żyzna gleba stanowi fundament naszych systemów żywnościowych, a dostępna woda jest krwiobiegiem naszych cywilizacji. Niestety, zanieczyszczenia oraz niezrównoważona działalność człowieka narażają te kluczowe zasoby na niebezpieczeństwo. Zaniedbywanie stanu środowiska prowadzi do niestabilności klimatu i utraty różnorodności biologicznej, podczas gdy proaktywna ochrona może zapewnić zrównoważoną przyszłość dla przyszłych pokoleń.

Poniższe scenariusze lekcji zostały opracowane, aby dostarczyć młodym ludziom niezbędnej wiedzy na temat ochrony wody, gleby i powietrza. Ich celem jest wyposażenie uczniów w praktyczne umiejętności dotyczące tego, jak możemy chronić te cenne zasoby i budować głębszy szacunek do świata przyrody.

Lesson plans on protecting our natural resources: water, soil, and air.

Introduction

There is no doubt that a healthy environment is an absolute prerequisite to the survival and well-being of all living things on Earth. But what does it truly mean to protect our planet, and why is the conservation of water, soil, and air so critical today?

The Earth's ecosystems are deeply interconnected. Clean air is essential for every breath we take, fertile soil provides the foundation for our food systems, and accessible water is the lifeblood of our civilizations. However, pollution and unsustainable human activities are putting these vital resources at risk. Neglecting environmental health leads to climate instability and the loss of biodiversity, whereas proactive protection can ensure a sustainable future for generations to come.

The following lesson plans have been designed to provide young people with essential knowledge about the protection of water, soil, and air. They aim to empower students with practical insights into how we can preserve these precious resources and foster a deeper respect for the natural world.

Lesson 1

Topic: **Eco-energy in the fight against smog**
Duration: 45 minutes
Group: 7 grade (primary school)
1. Lesson Objectives
Main goal:
Raising awareness of the problem of air pollution and the importance of alternative energy sources.
Specific objectives – the student:
-defines smog and identifies its causes,
-recognizes the effects of air pollution,
-suggests ways to fight smog,
-classifies natural resources (renewable, non-renewable, inexhaustible),
-points out examples of RES (renewable energy sources) and draws conclusions from experiments.
2. Methods and Forms of Work

- experiment,
- group work,
- brainstorming,
- guided discussion,
- mind map.

The document was developed as part of the Erasmus+ Project "Play Green with Us!".

3. Teaching Aids

- 2 glass jars, matches, vinegar, baking soda, sheet of paper (for the experiment “Smog in a Jar”),
- illustrations of the effects of air pollution and ways of prevention,
- illustrations of natural resources (renewable, non-renewable, inexhaustible),
- interactive whiteboard,
- platforms: Canva, Kahoot, Learningapps

4. Course of the Lesson

A. Introduction (approx. 5 min)

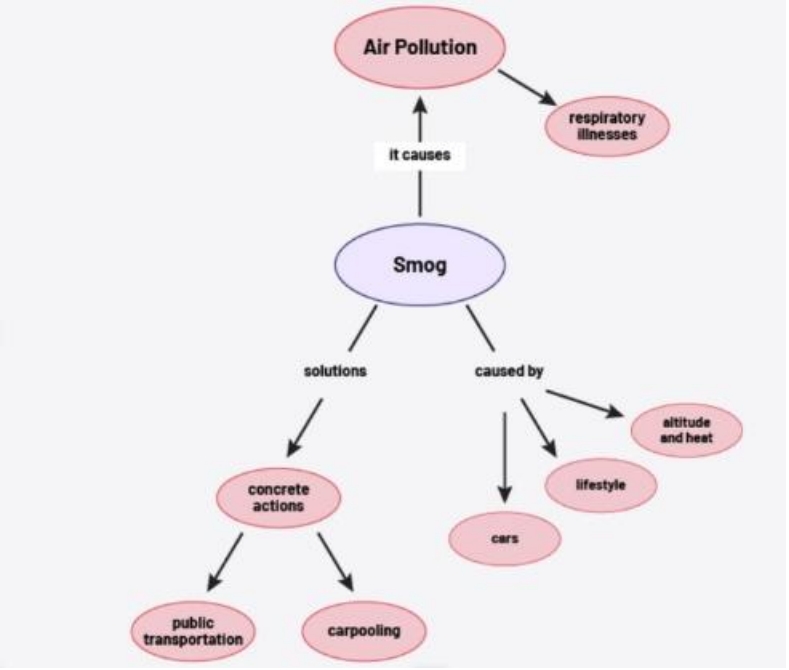
- Teacher: shows pictures of a city in smog and a city without smog on the interactive whiteboard. Asks: What do you see? How do you feel looking at these images?
- Short brainstorming: What might smog be?


1. Experiment: “Smog in a Jar” (10 min)

Put baking soda and vinegar into two jars (CO_2 is released, displacing oxygen).

In one jar, place a little piece of paper – it goes out → shows lack of oxygen and the presence of smoke, smog. Students observe and take notes.

Definition of smog – students create a mind map together around the keyword “Smog”: definition, causes, effects.



B. Main Phase (approx. 25 min)

2. Group work (10 min)

Each group gets an illustration (e.g. mask, bicycle/electric car, filters, green areas, wind power plant).
Groups analyze the illustration and explain how the method helps fight air pollution, then present results.

3. Interactive Quiz / Kahoot (5 min)

Quick online quiz with questions such as:
Is crude oil a renewable resource?
Which energy source does not emit CO_2?
What is the main cause of smog?
What health effects can smog cause?
Which human activity reduces smog formation?
Which of the listed resources is inexhaustible?
Students answer using their phones.

4. Educational Game "Three Tables – Energy in Practice" (5 min)

Cards with descriptions of situations (e.g. "coal – lasts for several decades, causes smog", "solar energy – clean, but depends on weather").
In class, three tables are set up:
non-renewable resources,
renewable resources,
inexhaustible resources.
Students draw a card and decide which table it belongs to, followed by a short justification.

5. Discussion (5 min)

Key question: Where should we get environmentally safe energy from?
Teacher introduces the names of power plants based on inexhaustible sources: hydro, wind, solar, geothermal.

C. Summary and Evaluation (approx. 5 min)

- Students list ways to reduce smog and name alternative energy sources.
- Teacher emphasizes that choosing RES reduces the emission of harmful substances.
- Additional task: observation of the surroundings – are there photovoltaic panels, heat pumps nearby? Later, students may create a collective RES map of the local area.

- **5. Evaluation**
- Students' activity during the experiment,
- correctness of classifying resources to the proper table,
- quality of answers in the final discussion.

Lesson 2

Topic: **Preventing Air Pollution**
Duration: 45 minutes
Age group: 10–14
Type of lesson: Educational and didactic activities.
Forms of work:

- Brainstorming
- Individual work
- Group work
- Educational games

Objectives:
By the end of the lesson, students will:

- Know practical solutions everyone can introduce to improve air quality.
- Take an active role in protecting the air.
- Understand safe, ecological, and ethical practices.
- Be able to formulate and share well-reasoned conclusions.

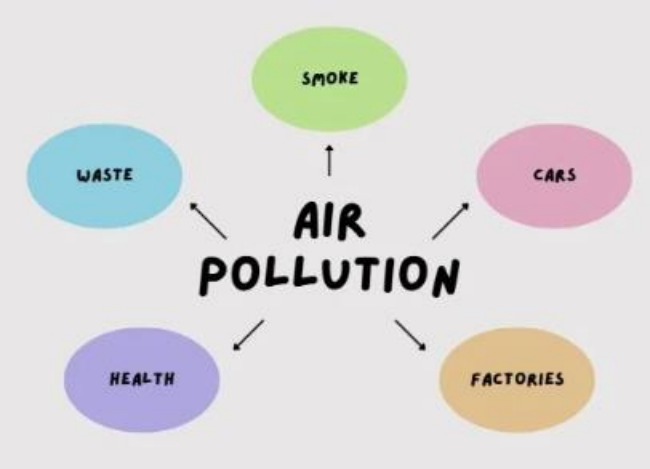
Materials:

- Large sheets of paper (for posters)
- Worksheets (air pollution prevention activity sheet)

- Markers, pens, sticky notes
- Interactive board/slides

Lesson Procedure:

1. Warm-up & Brainstorming (10 min)
   - Teacher shows a slide with the question: *"What comes to your mind when you hear the word air pollution?"*
   - Students brainstorm ideas. Teacher writes keywords on the board (e.g., smoke, cars, factories, waste, health).
   - Short discussion: Why is clean air important?



2. Group Activity – "What can we do?" (20 min)
   - Teacher divides the class into groups of five. Each group receives one theme:
     - *How to reduce emissions from heating homes* (stoves, boilers, fireplaces)?
     - *How to reduce emissions from transport*?
     - *How to save energy*?
     - *How to reduce the amount of waste produced*?
   - Groups work together and prepare their ideas on a mini-poster or worksheet.
   - Each group presents their solutions. Teacher provides feedback, corrects mistakes if necessary, and writes the best solutions on the board.
   - Teacher then shows a slide with model answers to consolidate learning.

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How to reduce emissions from heating (domestic boilers)?

- Use ecological sources for heating the home, e.g. renewable energy (heat pumps, etc.).
- If solid fuels must be used, choose only high-quality ones.
- Do not burn wet wood.
- Limit the use of fireplaces, as they also pollute the air.

How to reduce emissions from transport?

- Reduce car use by:
- – using public transport,
- – riding a bike or scooter,
- – walking.
- If using a car is necessary, choose a low-emission vehicle – these parameters are defined by European standards.

How to save energy?

- Turn off lights, computers, and electrical devices when not in use.
- Use energy-efficient light bulbs and appliances.
- Take part in local energy-saving programs.
- Run dishwashers and washing machines only when full.

Increase energy efficiency and change habits – reduce energy consumption by adopting responsible practices and using more efficient appliances.i

How to reduce the amount of waste produced?

- Follow the 3R principle: Reduce, Reuse, Recycle, which promotes environmentally friendly attitudes.
- Reuse items for other purposes instead of throwing them away, and avoid buying unnecessary things.

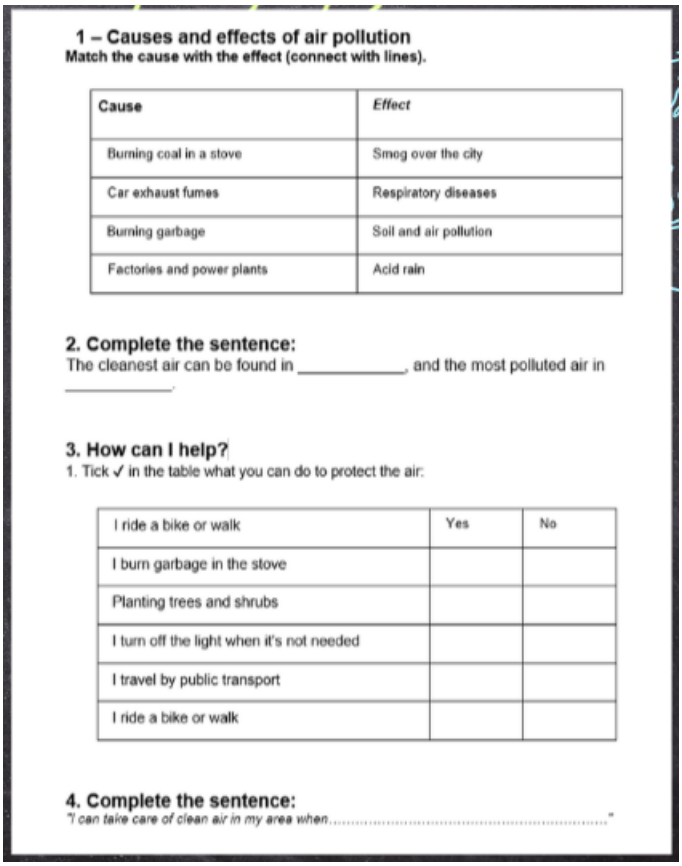
The document was developed as part of the Erasmus+ Project "Play Green with Us!".

3. Poster Activity – "Children's role in protecting clean air" (15 min)

- Teacher says: *"So far, we discussed what everyone can do. But what can children aged 10–14 do specifically*?"
- Students brainstorm what they can do in their school, class, at home, on their way to school, and in the village to prevent pollution.
- In groups, students create an infographic/poster on large sheets of paper.
- Each group presents their poster to the class. Teacher highlights strong ideas and attaches the posters to a classroom display board.

4. Summary :

- Teacher shows a summary slide with key solutions.
- Students individually complete the worksheet: "Preventing Air Pollution".
- Short discussion: Which idea from today can you start doing tomorrow?



1 – Causes and effects of air pollution

Match the cause with the effect (connect with lines).

Cause	Effect
Burning coal in a stove	Smog over the city
Car exhaust fumes	Respiratory diseases
Burning garbage	Soil and air pollution
Factories and power plants	Acid rain

2. Complete the sentence:

The cleanest air can be found in _____, and the most polluted air in _____.

3. How can I help?

1. Tick ✓ in the table what you can do to protect the air:

	Yes	No
I ride a bike or walk		
I burn garbage in the stove		
Planting trees and shrubs		
I turn off the light when it's not needed		
I travel by public transport		
I ride a bike or walk		

4. Complete the sentence:

"I can take care of clean air in my area when....."

5. Extra Activities (if time allows)

- Renewable energy project – students prepare a small project about renewable energy sources in their town/village. Teacher can show educational videos:
  - Educational video on renewable energy https://www.youtube.com/watch?v=SE7FzUFKUwY
  - School project model of renewable energy sources https://www.youtube.com/watch?v=Us8QahVIWBI

End of lesson:
Students understand their personal responsibility and practical steps for reducing air pollution.

Lesson 3

PLAY GREEN WITH US

Grade: 6th -7th

Duration: 45

Subject: English

Topic: Soil and its importance.

Aim: To understand the importance of soil.

Learning Objectives:

- Learn 5 to 10 new words and understand key vocabulary related to soil.
- Name 1 – 3 important facts about soil.
- Identify the layers of soil.

Methods: Listening, video, questions and answers, work in pairs, individual work.

Material: Video: https://www.youtube.com/watch?v=OiLITHMVcRw&t=136s, multimedia, internet, worksheet papers, mobile phones.

Lesson structure:

1. Warm-up & Introduction: (5 minutes)

Introduce the topic: soil and why it is important. "What is soil?" "Why do you think soil is important?" What do you know about the earth and its layers?

2. Main lesson (35 mines)

- Teams: Divide class into teams. Give worksheets
- Watch the Video: Play the video. Ask students to listen carefully for new words and interesting facts. Students put down possible answers on papers.
- Task 1 Vocabulary Relay: Teams matches definitions to words on the board
- Task 2 True or False Race: Teams show their answers
- Task 3: Kahoot game.
- Super Soil Facts Challenge: Teams explain why each point is important.

Conclusion and evaluation (5 minutes)

https://www.mentimeter.com/app/presentation/alpghavk6emuzmdp8eake74sonkt812b/edit?question=hee933amdphc

Simple homework: Write 3 sentences about why soil is important.

Lesson 4

ERASMUS: PLAY GREEN WITH US
Lesson Plan

Permaculture gardening

Subject: English
Name of teacher: Rasa Krulikauskienė
Grade: Middle School (6th - 7th Grade)
Duration: 45 minutes
Learning Objectives:
After reading the text or working in groups, students will be able to:

- ✅ Understand 2-10 basic terms of permaculture gardening.
- ✅ Give 2-5 reasons why permaculture gardening is beneficial to people and nature.

Materials and Resources:
Interactive whiteboard or projector
https://www.youtube.com/watch?v=Jl2Ma_heuLA 1-4 min 10-14 min or
https://www.youtube.com/watch?v=YRSn-DZTGa4&t=76s
Canva presentation
https://www.canva.com/design/DAGnQpi2Oqk/XuSDqkArwv3oyx2CDNHEzg/edit?utm_content=DAGnQpi2Oqk&utm_campaign=designshare&utm_medium=link2&utm_source=sharebutton
Worksheets for reading and vocabulary
Personal devices for working online (mobile phones, computers or tablets)
Bamboozle game https://www.baamboozle.com/game/3286290

Lesson Structure:
1. Introduction (5 minutes)
Class Discussion:
Is there a possibility that you will be gardening?
What are the ways of simple and effective gardening?
Learning Objectives are formulated during the discussion:
After watching a video about permaculture principles, reading the text, or working in groups, students will be able to:

- ✅ Explain 2-10 basic terms of permaculture gardening.
- ✅ Give 2-5 reasons why permaculture gardening is beneficial to people and nature.

2. Main Lesson (30 minutes)

- Watching one or two videos (depends on class knowledge) 10 minutes
- Searching the internet, finding the answers (team 1 explorers)
- Reading the text and definitions (team 2 scientists)
- Playing bamboozle game to find out which team knows more answers (10 minutes)

3. Conclusions and evaluation (10 minutes)

Answering the questions of the quiz. Students write the answers individually, then check and self-evaluate. Class Discussion giving the same questions as in the beginning of the lesson.

Reading: Permaculture Gardening

Permaculture gardening is a way of growing food by working with nature. The word "permaculture" comes from "permanent" and "agriculture." It means creating a garden that can last a long time without damaging the environment. In a permaculture garden, people grow many kinds of plants together. This is called plant diversity, and it helps keep the garden healthy. When different plants grow together, they protect each other from insects and diseases. For example, some plants can keep harmful bugs away, while others help the soil stay full of nutrients.

Permaculture gardeners also use natural materials like compost, mulch, and rainwater. Compost is made from old vegetables, fruit peels, and garden waste. It gives food to the plants. Mulch is a layer of leaves or straw on top of the soil. It keeps the soil wet and cool, and it stops weeds from growing.

Another important idea in permaculture is using less. Gardeners try not to waste water or energy. They often collect rainwater in barrels and reuse it to water plants. They also avoid using chemicals that can hurt the earth.

Permaculture gardens can be big or small. You can make one in your backyard, on a balcony, or even in pots. These gardens are good for nature and for people. They help us eat healthy food and care for the planet at the same time.

Part A: True or False

1. Permaculture gardening uses only one kind of plant.
2. Compost is made from old food and garden waste.
3. Mulch helps the soil stay wet and stop weeds.
4. Permaculture gardens waste a lot of water.
5. You can make a permaculture garden even in a small space.

Part B: Multiple Choice

6. What does 'permaculture' mean?
- A) Gardening with many flowers
- B) A long-lasting way of growing food
- C) A garden that uses a lot of water

7. Why do people grow different plants together?
- A) To make the garden look nice
- B) To help plants grow and stay healthy
- C) To use more soil

8. What is one way permaculture helps the environment?
- A) It uses many chemicals
- B) It saves water and energy
- C) It cuts down trees

9. What do gardeners use instead of chemicals?
- A) Nothing
- B) Plastic tools
- C) Natural materials like compost

Permaculture *Definition: A way of gardening that works with nature to grow food in a healthy, long-lasting way. Explanation: It means growing plants without harming the environment, using natural methods.*

Sustainable *Definition: Something that can continue for a long time without damage. Explanation: In gardening, this means using water, soil, and energy carefully so we don't run out.*

Soil *Definition: The top layer of the ground where plants grow. Explanation: Good soil has nutrients that help plants stay healthy.*

Compost *Definition: A natural fertilizer made from old food, leaves, and plant waste. Explanation: People mix food scraps and garden waste to make rich soil to help plants grow.*

Mulch *Definition: A layer of leaves, straw, or wood chips that covers the soil. Explanation: It keeps the soil wet, stops weeds, and protects plant roots.*

Nutrients *Definition: Substances in the soil that help plants grow. Explanation: Nutrients are like food for plants, and they come from compost or natural soil.*

Diversity *Definition: Having many different kinds. Explanation: In permaculture, it means growing many types of plants together to make the garden stronger and healthier.*

The document was developed as part of the Erasmus+ Project "Play Green with Us!".

Rainwater harvesting *Definition: Collecting and storing rain to use for watering plants. Explanation: Gardeners save water by using barrels to catch rain.*

Organic *Definition: Grown without using chemicals or artificial products. Explanation: Organic gardening uses natural ways to feed and protect plants.*

Ecosystem *Definition: A community of living things (plants, animals, insects) working together in nature. Explanation: A permaculture garden is like a small ecosystem where everything helps each other.*

Permaculture Gardening Vocabulary Quiz

1. What is compost made of?
   - A) Plastic and water
   - B) Old food and garden waste
   - C) Rocks and sand
2. What does 'organic' mean in gardening?
   - A) Using chemicals to grow food
   - B) Growing food in a factory
   - C) Growing without chemicals
3. Why is mulch used in gardens?
   - A) To dry the soil
   - B) To keep soil wet and stop weeds
   - C) To feed animals
4. What is an ecosystem?
   - A) A single plant in a pot
   - B) A system of machines
   - C) A group of plants, animals, and insects living together

Match the Words to Their Meanings. Write the letter of the correct match.

5. Permaculture
6. Rainwater harvesting
7. Nutrients
8. Diversity

A. Food for plants in the soil
B. A way of gardening that works with nature
C. Collecting water from rain
D. Growing many kinds of plants together

Fill in the Blanks. Use the words: soil, compost, sustainable, mulch.

9. _____ helps keep the ground cool and stops weeds.
10. Gardeners use _____ made from food waste to help plants grow.
11. Good _____ is full of nutrients.
12. Permaculture is a _____ way of gardening.

Write 2-5 reasons why permaculture gardening is beneficial to people and nature

Lesson 5

ERASMUS + PLAY GREEN WITH US

Lesson Plan Details: Water Crisis by Marina Kleitsa

Subject: English

Topic : Environment

Lesson plan title: Water Crisis

Grade: B Gymnasium (2nd Grade of Junior High School)

Class: B1

Language level: B1 – B1+

The curriculum: It is addressed to 14-year-old students of the B' grade of Gymnasium, who are at the B1 level of language proficiency based on CEFR (2020). The thematic field refers to the need to protect the environment and is particularly suitable to underline the need for proper water management in its domestic use. The tables that are given to the students for analysis and discussion come from questionnaires that were distributed to friends and relatives of the children and concern the area of Diavata.

Class composition: The class consists of 24 students. From the 24 students, 6 groups of 4 students are created.

Duration: 90 minutes

Aims and Objectives

• To recognize the consequences of water misuse in the environment

• To engage in issues related to the reckless use of water as it results from the content of the video being shown.

• Think critically about the prevailing perceptions regarding the use of waste in their neighborhood

• Prioritize the functions of domestic water use in their daily life through the group collaborative approach

Worksheet 1

Activity A

A) In pairs examine the following drawings and decide on water use priorities. Put them in the right order according to your judgement and justify your answers orally.

Figure 1

Figure 2

Figure 3

Figure 4

Figure 5

figure 6

1._____ 2._____ 3._____ 4._____ 5._____ 6._____

Justify your answers

Time 5-10 minutes

Activity B : 10 minutes

In pairs watch the following video and discuss the questions

https://www.youtube.com/watch?v=HsOzDSV5Unc

1) What are the activities in the video related with domestic water use? Name them below.

a) _____ b) _____

c)_____

Activity C: 10 minutes

a) Can you put the domestic activities on the scale below?

b) How different are the priorities between the two cultures represented by the man and the little girl? Note down your opinion.

_____

_____

_____

Activity D : Time 20 minutes

In groups of 4 read the following text quickly and guess the meaning of the bold type words from the context. Note them down and give a synonym in English or an example

1. irrigation: _____

2. Glaciers: _____

3. Diverse ecosystems: _____

4. Sustainable water supply _____

5. Infrastructure: _____

6. Sanitation: _____

7. Shortage of clean water:

_____

The water crisis – what are the big issues?

Water is one of the most essential resources on Earth. It covers about 70% of our planet's surface and is found in various forms, including saltwater and freshwater.

The majority of water on Earth is saltwater, which fills our oceans and seas. Saltwater contains high levels of salt and minerals, making it unsuitable for drinking or **(1) irrigation**. Freshwater, on the other hand, is the water we can use for our daily needs. It is found in rivers, lakes, underground, and in the form of ice in **(2) glaciers** and polar regions.

Fresh water is vital for our survival and supports **(3) diverse ecosystems**. It is used for drinking, farming, cooking and generating electricity. However, it's important to conserve and protect it. We must ensure to use it wisely and prevent pollution so as to store **(4) sustainable water** supply for ourselves and future generations.

The facts about the water crisis are very shocking. According to the British charity WaterAid, https://www.wateraid.org/uk/, around 785 million people do not have clean water in or near their houses, for drinking or washing. That's about ten per cent of the global population. But why is this important? The serious effects of the water crisis can be seen in four ways: the effecton people's health, on their education, on their financial situation and on the stability of their community. Let's look at these issues one by one.

1)Health

Water is used to keep clean, and keeping clean is key to good health. For example, a simple cut to a child's leg can be treated by washing it, to avoid infections. Where there is no clean water,

that simple cut can become a serious medical condition. Equally, washing hands with clean water after using the toilet will help stop the spread of fatal diseases.

2)Clean hands

For so many people in the world, handwashing is not something that people think about. It's something people do automatically, with the clean water that is always there. Clean hands stop disease spreading, and the importance of doing this before a meal, after using the toilet and while cooking is fundamental. The **(5) infrastructure** needed for clean water should always be available

3)Education

Children who are not healthy or who have to walk a long way to collect water are less likely to attend fulltime education, and those with unhealthy families at home are less likely to be able to study to the level required to get to college or university. This lack of education contributes to poor **(6) sanitation** and hygiene. This creates a vicious circle. This problem is particularly bad for girls, who tend to be the families' members who walk a long way to collect water.

4)Lakes and the sea

Climate change means that lakes will become warmer, and this can kill fish, which in turn means that fishing communities will suffer. Sea levels are also rising due to climate change, and in low-income countries, this can result in seaside towns and villages being damaged or even completely destroyed. From the above, it is clear that there is a strong connection between climate change and both too much and too little water. Both of these issues can result in catastrophes for communities around the world.

5)Political stability

Water is a basic resource that is central to health and well-being. Because of this, it is often a source of conflict and even wars. The stability of a whole region or even a country can be in danger because of a **(7) shortage** of clean water. To try and decrease the impact of the water crisis, the United Nations has a Sustainable Development Goal (number 6) that specifically refers to water and sanitation.

Activity E: Do the following activities and check if you were right : 10 minutes

https://app.nearpod.com/?pin=GJYRF

c) Read the short text and decide which word suits best the blackened space. Drag and drop

https://app.nearpod.com/?pin=9UVPA

Activity F : Write a short presentation where you refer to 4 problems in the daily use of water and what you can do to deal with them properly : 20 minutes

Activity G: Answer the questionnaire individually : 5 minutes

1.How well did you work with your team?

a)Excellent b) Quite well c) Bad

2.What activities did you enjoy the most? Write the activity- activities

_____

3.Overall, did you find the activities?

a) easy b) quite easy c) difficult

4. Name 4 basic rules of thumb about careful use of water on a daily basis?

a)

b)

c)

d)

Lesson 6

ERASMUS: PLAY GREEN WITH US

Lesson Plan: The Importance of Water for the Survival and Reproduction of Microorganisms

Subject: Biology **Name of teacher:** Elovari Eleni

Grade: Middle School (7th–9th Grade)

Duration: 45 minutes

Learning Objectives:

By the end of the lesson, students should be able to:

✅ Understand the importance of water for the structure and function of microorganisms.

✅ Explain the role of water in nutrient transport, chemical reactions, and cellular processes.

✅ Describe how water availability affects the growth and reproduction of microorganisms.

Materials and Resources:

Interactive whiteboard or projector

PowerPoint presentation

Worksheets

Test tubes with water samples (e.g., pond water, tap water)

Microscopes

Lesson Structure:

1. Introduction (5 minutes)

Class Discussion:

➜ Why is water important for life?

➜ Can organisms survive without water?

➜ What do you think happens to microorganisms if they are deprived of water?

State Learning Objectives:

➔ "Today, we will explore why water is essential for the survival and reproduction of microorganisms."

2. Main Lesson (30 minutes)

ThE key points are:

- ✅ Role of water in structure and function
- ✅ Chemical reactions
- ✅ Reproduction and survival

A. Theoretical Approach (15 minutes)

The Role of Water in the Structure and Function of Microorganisms

- ✅ Water makes up 70–90% of the cell volume.
- ✅ It is essential for maintaining cell shape and enabling enzymatic activity.

Water and Chemical Reactions

- ✅ Water acts as a solvent for metabolic reactions.
- ✅ It participates in hydrolysis and dehydration reactions (formation of macromolecules).

Water and Reproduction

- ✅ Microorganisms need a water-based environment for movement and exchange of genetic material.
- ✅ The presence of water triggers cell division and multiplication.

B. Experimental Activity (15 minutes)

Observing Microorganisms in Water:

➔ Students will use microscopes to examine water samples from different sources (dish under the flowerpot and yeast in water).

➜ They will record their observations (e.g., bacteria, protozoa and fungus).

3. Recap and Conclusions (5 minutes)

Class Discussion:

➜ Why do microorganisms depend on water?

➜ What happens if water is contaminated or scarce?

➜ How can we protect aquatic ecosystems to support microbial life?

4. Evaluation (5 minutes)

✓ Comprehension Questions:

What is the role of water in cellular reactions?

How does the lack of water affect the reproduction of microorganisms?

How do microorganisms survive in dry environments?

✓ Worksheet:

True/false statements about the relationship between water and microorganisms.