



Erasmus+



Environmental Education Lesson Plans



**Environmental Education Lessons have been prepared
by schools in Poland, Italy, Türkiye and Lithuania.**

Lesson Plan: Save Our Planet

Grade Level: Sixth

Subject: World Languages

Duration: 1 hour

Teacher: Agnieszka Kacperek

School: Szkoła Podstawowa nr.5 im. Polskiej Macierzy Szkolnej/Poland

Lesson Overview

This lesson focuses on environmental conservation. The students will explore water saving, recycling, and preventing waste incineration. They will work in groups to create informative posters, fostering collaboration and creativity.

Learning Objectives

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

1. **Identify** key issues related to water conservation, recycling, and waste management. (*Bloom's: Remember*)
2. **Explain** the importance of saving water and recycling in preventing environmental damage. (*Bloom's: Understand*)
3. **Discuss** the negative effects of burning waste on the environment. (*Bloom's: Understand*)
4. **Collaborate** in groups to design a poster that promotes environmental awareness. (*Bloom's: Apply*)
5. **Evaluate** the effectiveness of different environmental conservation strategies. (*Bloom's: Evaluate*)
6. **Create** a group poster that communicates a clear message about saving the planet. (*Bloom's: Create*)

Materials Needed

- Chart paper
- Markers, colored pencils, and crayons
- Access to online resources or printed materials about environmental conservation

Lesson Structure: Introduction (10 minutes)

- **Hook:** Start with a brief discussion about the importance of taking care of the planet. Ask students to share what they know about environmental issues.
- **Objective Presentation:** Explain the lesson objectives and the activities planned for the session.

Instruction (15 minutes)

- **Water Conservation:** Discuss the importance of saving water. Share statistics or stories about water scarcity.
- **Recycling:** Introduce the concept of recycling and its benefits. Show examples of everyday recyclable items.
- **Waste Management:** Explain why burning waste is harmful and discuss alternative waste disposal methods.

Group Activity (25 minutes)

- **Poster Creation:**
 - Divide students into small groups.
 - Assign each group one of the three topics: water saving, recycling, or waste management.
 - Instruct groups to create a poster that includes facts, statistics, and illustrations to promote their assigned topic.

Presentation and Discussion (10 minutes)

- Have each group present their poster to the class.
- Facilitate a discussion on the different strategies presented and their potential impact on saving the planet.

Assessment

- **Formative Assessment:** Observe group discussions and participation during the poster creation activity.
- **Summative Assessment:** Evaluate the completed posters for creativity, accuracy, and clarity in communicating their message.

Reflection

- Ask students to reflect on what they learned and how they can implement these practices in their daily lives.
- Encourage them to think about other ways they can contribute to environmental sustainability.

Extensions

- **Homework:** Research one new fact about an environmental issue and share it with the class in the next lesson.
- **Project:** Start a class recycling initiative or water-saving campaign.

This lesson incorporates cooperative learning strategies and aligns with the teaching practices of Mike Mattos, promoting student engagement and understanding through active participation and collaboration.

Integrated lesson: Theory and Practice on Composting with Creation of an Information Panel

School Level: 7th Grade

Subject: The composting process.

Duration: 4 hours

Teacher: Nadia Travaglione

School: I.C.B.Bosco Lucarelli -Benevento-Italy

Lesson Objective:

To provide students with a complete understanding of composting through a theoretical lesson and a practical activity, culminating in the creation of an information panel that summarizes the information learned.

Duration:

4 hours (2 hours for theory and 2 hours for practice)

Structure of the Lesson

Part 1: Theoretical Lesson on Composting (2 hours)

1. Introduction to Composting (30 minutes)

- Explanation of what composting is and its natural decomposition process.
- Discussion of compostable materials (kitchen scraps, leaves, grass) and non-compostable materials (meat, dairy, oils).
- Benefits of composting: waste reduction, creation of natural fertilizer, improvement of soil quality.

2. Composting Process (30 minutes)

- Details on the stages of composting: collection, mixing, aeration, humidity and time.
- Importance of the balance between “green” materials (nitrogen) and “brown” materials (carbon).

3. Types of Compost Containers (30 minutes)

- Presentation of different types of compost containers and their characteristics.

- Discussion on how to build a compost container using recycled or easily available materials.

4. Preparation for the Practical Activity (30 minutes)

- Explanation of the practical activity: construction of a compost container and planting.
- Division of the class into groups and assignment of tasks for the construction of the container and planting.

Part 2: Practical Activity (2 hours)

1. Compost Bin Construction (1 hour)

- Each group builds a compost bin using the materials provided (e.g. wooden pallets, wire mesh).
- Students fill the bin with compostable materials, balancing green and brown materials.

2. Planting (1 hour)

- Preparing the pots or gardening area by mixing compost and soil.
- Planting seeds or seedlings, explaining the importance of caring for plants.
- Lightly watering the plants after planting.

Part 3: Making the Information Panel (1 hour)

1. Creating the Information Panel (1 hour)

- Using posters, markers, pictures and information gathered during the theoretical and practical lesson, each group creates an information panel about composting.
- The panel should include:
 - What is composting?
 - Benefits of composting.
 - Compostable and non-compostable materials.
 - Phases of the composting process.
 - How to build a compost bin.
 - Importance of planting and using compost.

2. Presentation of the Panels:

- Each group presents their information panel to the class, explaining the information and the importance of composting.
- Open discussion to share ideas and reflections.

Conclusion (30 minutes)

- Final Reflection:
- Discuss the importance of composting and how everyone can contribute to a more sustainable environment.
- Encourage students to put into practice what they have learned, both at school and at home.

Evaluation:

- Evaluate student participation in building the bin, planting and creating the information panel.
- Observe commitment and creativity in the presentation and group work.

This integrated lesson offers a complete approach to composting, combining theory and practice, and promoting creativity and teamwork through the creation of an information panel.

Lesson Plan: An Experiment on Invisible Organisms in the Air and Air Pollution

School Level: 4th Grade

Subject: Microorganisms in the air that we cannot see with the naked eye, which cause air pollution.

Duration: 1 hours

Teacher: Muhammed Hüseyin ÖZKAN

School: Arnavutköy Science Center / Cahit Zarifoğlu Primary School-İstanbul-TÜRKİYE

Lesson Overview

This course focuses on environmental protection.

Microorganisms in the air, invisible to the naked eye, cause air pollution. How do these microorganisms multiply and how can we observe them?

These microorganisms (bacteria, fungi, etc.) are grown and multiplied in a specially prepared nutrient medium called a culture medium. The culture medium contains a jelly-like substance (agar). This substance acts as "food" for the microbes and makes them visible. In short: The culture medium is the "food + water + suitable environment" mixture necessary for the growth of microbes. Let's begin!

Experiment Objectives:

- To observe how bacteria, invisible to the naked eye, multiply in a prepared culture medium.
- To understand how clean or polluted air can affect the number of these organisms.
- To raise awareness about air pollution in children at an early age.

Materials Used:

- Prepared culture medium (agar-filled container)
- Pen (for writing name and date)
- Adhesive paper
- Environment to maintain a constant temperature of 30-32 degrees Celsius.
- Microscope
- Slide

- Cover slip
- Dropper and water

Method (How it was done):

1. The date, time, and location are written on both culture media (e.g., "28/11 Classroom" – "kitchen").
2. The lids of the culture media are left open for 30-60 minutes in the environment where the experiment will be conducted.
3. After the time is up, the lids are closed.
4. The culture media are placed in a suitable environment at a constant temperature of 30-32 degrees Celsius for observation.
5. After 72 hours, the bacterial growth in the culture media is observed under a microscope.

Observation (What Happened?) :

- On the first day, both culture media appear clean.
- After 2-3 days, small dots (bacterial colonies) appear in both.
- However, more dots, faster multiplication, or colonies of different colors may be seen in the culture medium opened outside.
- This suggests that there may be more bacteria and dust particles in the outside air.
- Bacterial formation is at its full potential after approximately 72 hours. And it is examined under a microscope and the diversity is observed.

Conclusion:

- The air contains many small organisms and dust particles that we cannot see with the naked eye.
- In places with higher air pollution, the number of these organisms and particles may increase.
- Children learn that breathing clean air is important and that air pollution affects the environment and health.
- Through this experiment, they have the opportunity to observe both the multiplication of microbes and how clean our environment is.

Lesson Plan:

School Level: Grade

Subject: Lithuania

Duration: 1 hours

Teacher:

School:Vilnus-LITHUANIA

Lesson Overview