

Clean Earth, Responsible People

Caring for Nature and Biodiversity – Our Shared Future

LESSON PLAN

1. Theme: Me, My Community, and the Planet

Environmental Protection, Ecology, Biodiversity, Sustainable Living, Responsibility

2. Grade: 6th Grade (11–12 years old)

3. Target Group: Students of Islamic background living in Greece, in a multicultural classroom environment

4. Lesson Type

Lesson for acquiring new knowledge, developing environmental and biodiversity awareness, and strengthening responsible attitudes toward nature and living organisms

5. Duration: 45 minutes

6. Basic Terms: environment, ecosystem, biodiversity, habitat, species, pollution, waste, recycling, climate change, sustainability, natural resources, responsibility, conservation, protect, endangered species, future generations

7. Pedagogical Methods: Guided discussion, Inquiry-based learning, Problem-based learning, Visual learning, Cooperative learning, Case studies (local and global examples), Reflection and values-based learning, Intercultural dialogue

8. Teaching Aids (Means)

Board / interactive board

Projector and PPT slides

World map (physical & environmental)

Images of ecosystems and species

Images of endangered animals and polluted habitats

Worksheets

Short informational texts (adapted from children's encyclopedias)

Colored cards (green / red)

9. Goals

Educational Goals

Students will learn to:

- ✓ Understand the concept of biodiversity and why it is essential for life
- ✓ Explain how ecosystems function and remain balanced
- ✓ Identify major threats to biodiversity
- ✓ Understand how human actions affect plants and animals
- ✓ Learn practical ways children can protect nature

Formational Goals

Students will learn to:

- ✓ Take responsibility for their environmental behavior
- ✓ Develop respect for all living beings
- ✓ Understand environmental protection as a shared human value
- ✓ Appreciate intercultural and ethical perspectives on caring for nature
- ✓ Develop empathy toward animals, plants, and future generations

10. Cross-Curricular Connections

Science (Ecology, Biology, Earth Science)

Geography (Natural environments of Greece and the world)

Citizenship Education

Ethics / Values Education

Religious & Cultural Studies (contextual, non-instructional)

11. Expected Results

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

- ✓ Define “biodiversity” in their own words
- ✓ Explain why ecosystems need balance
- ✓ Name at least three threats to biodiversity
- ✓ Describe how children can help protect nature
- ✓ Explain environmental responsibility as a shared duty
- ✓ Show respect for different cultural perspectives on nature

12. Preparation for the Teacher

The teacher prepares:

- PPT with images of healthy and damaged ecosystems
- Short adapted informational texts (see section 16)
- Worksheets
- Examples connected to everyday life in Greece (sea life, forests, water use)

13. Structure of the Lesson

A. Introduction – Visual Trigger & Discussion (6 minutes)

Teacher shows two images:

- A forest with rich wildlife
- A damaged forest or polluted sea

Guided Questions:

- What differences do you notice?
- How do you think animals feel in each place?
- What caused these differences?

Transition:

“Today we will learn how nature works, why biodiversity is important, and what we can do as children to protect it.”

CORE CONCEPTS – THEORY

Teacher's Theoretical Notes

The environment is a complex system made up of living and non-living elements. Within this system, biodiversity plays a central role. Biodiversity refers to the variety of plants, animals, and ecosystems that exist on Earth. High biodiversity helps nature remain strong, stable, and able to adapt to changes. When biodiversity is reduced, ecosystems become fragile and may collapse.

An ecosystem is a place where living organisms interact with non-living elements such as air, water, soil, and sunlight. Forests, seas, wetlands, farms, and cities are all ecosystems. Each ecosystem has a natural balance that supports life. When this balance is disturbed, plants and animals may lose their habitats, food sources, and ability to survive.

Human activities are one of the main reasons biodiversity is under threat today. Pollution, deforestation, plastic waste, climate change, and uncontrolled use of natural resources harm ecosystems. For example, plastic pollution in the sea endangers marine animals, while cutting forests destroys habitats for birds and mammals.

Environmental problems also directly affect human health. Clean air, water, and food depend on healthy ecosystems. When nature is damaged, people face health risks, food shortages, and unsafe living conditions. Children are especially vulnerable because their bodies are still developing.

Environmental responsibility is not limited to adults or governments. Children play an important role because daily habits shape the future of the planet.

Simple actions—such as reducing waste, recycling, saving water, respecting animals, and protecting plants—can collectively make a significant difference.

Caring for biodiversity is a value shared across cultures. In Greek culture, respect for land and sea has always been connected to survival and community life. In Islamic cultural tradition, humans are considered caretakers (khalifa) of the Earth, and nature is viewed as a trust (amanah). These perspectives emphasize responsibility, balance, and respect for life.

Environmental education should empower students rather than create fear. While environmental challenges are serious, positive change is possible. Knowledge, cooperation, and responsible action help protect nature for future generations.

14. Practical Activities & Timeline

1. Guided Discussion – “Biodiversity Around Us” (7 minutes)

Questions:

- What plants and animals live near your home?
- What happens if they disappear?
- How can children help protect them?

2. Game – “Protect or Harm?” (7 minutes)

Students raise:

- Green card – protects biodiversity

- Red card – harms biodiversity

Examples:

- Recycling paper
- Throwing plastic in nature
- Protecting animals
- Cutting trees unnecessarily

3. Worksheet – “My Actions for Nature” (8 minutes)

Students:

- ✓ Match threats with solutions
- ✓ Circle responsible behaviors
- ✓ Write one personal promise to protect nature

4. Reflection Circle (5 minutes)

Sentence starters:

- “Biodiversity is important because...”
- “One thing I can do to protect nature is...”

Teacher concludes:

“Protecting biodiversity means protecting life itself.”

15. Variations and Extensions

- Create a “Biodiversity Protection Charter” for the class
- Organize a nature observation walk
- Connect with Geography and Biology lessons
- Invite an environmental educator

16. Informational Texts (Instead of Moral Stories)

Text A – Children’s Encyclopedia

Adapted Text:

“Biodiversity helps ecosystems stay healthy. When many different plants and animals live together, nature can recover more easily from damage.”

Source: National Geographic Kids – Encyclopedia of the Environment

Text B – Educational Source

Adapted Text:

“Protecting habitats is one of the best ways to protect animals. When habitats are destroyed, species may disappear forever.”

Source: DK Children’s Encyclopedia: Our Planet

Text C – Global Perspective

Adapted Text:

“Children have the right to a healthy environment. Protecting nature today helps ensure a safe future for all children.”

Source: UNICEF – Children and the Environment

17. Information for the Teacher

Pedagogical Notes

- Focus on responsibility and empowerment
- Avoid fear-based approaches
- Use examples familiar to students in Greece
- Present cultural perspectives respectfully and inclusively

18. Final Teacher Reflection

After the lesson, reflect on:

- Student engagement
- Understanding of biodiversity
- Ability to connect actions with consequences
- Respect for intercultural values

Final message:

Caring for nature and biodiversity is a shared human responsibility that unites cultures and protects the future of all children.

19. Sources of Information for the Lesson

Children's Encyclopedias

National Geographic Kids – Encyclopedia of the Environment

DK Children's Encyclopedia: Our Planet

DK Find Out! – Environment & Ecology

International Organizations

UNICEF – Children and the Environment

UNESCO – Education for Sustainable Development

WHO – Environment and Health

European & Greek Context

European Environment Agency – Educational Materials

Hellenic Ministry of Environment and Energy

Intercultural Context

UNESCO – Intercultural Education Guidelines

Islamic Foundation for Ecology and Environmental Sciences (IFEES)

20. Variations to Enrich the Core Lesson

VARIATION 1

Extended Mini-Lecture: *The Environment and Human Health*

Duration: 10–12 minutes

Teaching Mode: Teacher-led explanation with guided discussion

Student-Facing Text (to be read or explained by the teacher)

The environment plays a very important role in human health. Everything people need to live—clean air, clean water, safe food, and a stable climate—comes from nature. When the environment is healthy, people are more likely to be healthy as well. When the environment is damaged or polluted, human health is also affected.

Clean air is necessary for breathing. Our lungs and heart depend on oxygen from the air to work properly. When the air is polluted by cars, factories, or burning fuels, people may experience coughing, breathing difficulties, headaches, or tiredness. Children are especially sensitive to air pollution because their bodies are still growing and developing.

Clean water is essential for drinking, cooking, and hygiene. Water pollution occurs when waste, chemicals, or plastic enter rivers, lakes, and seas. Polluted water can cause stomach illnesses and infections. When water is not safe, both people and animals suffer.

Healthy soil is also important because it supports the plants that grow our food. If soil is polluted, crops may become unsafe to eat. This shows that environmental problems do not stay only in nature—they reach human bodies through air, water, and food.

Protecting the environment means protecting human health. When people reduce pollution, recycle waste, and save natural resources, they help create healthier living conditions for everyone. Environmental responsibility is therefore also a form of care for ourselves and our communities.

Pedagogical Focus for the Teacher

- Emphasize **connection**, not fear
- Use familiar examples (air quality in cities, clean beaches, drinking water)
- Reinforce the idea that **health and environment cannot be separated**

VARIATION 2

Conceptual Table Activity: *From Environmental Damage to Health Effects*

Duration: 7–10 minutes

Teaching Mode: Group work or whole-class discussion

Teacher Explanation

Environmental problems often have direct or indirect effects on human health. Helping students understand these connections builds critical thinking and responsibility. The table below can be used as a discussion tool or worksheet.

Environmental Problem	What Happens in Nature	Consequences for Human Health
Air pollution	Air becomes dirty and	Breathing problems, asthma,

Environmental Problem	What Happens in Nature	Consequences for Human Health
	unsafe	fatigue
Water pollution	Rivers and seas are contaminated	Stomach illnesses, unsafe drinking water
Plastic waste	Animals eat plastic	Unsafe food chain, environmental toxins
Climate change	Extreme heat and weather	Heat stress, dehydration, illness

Discussion Questions

- Which environmental problem affects people the most in your area?
- Why are children more affected by pollution than adults?
- How can small actions reduce these health risks?

VARIATION 3

Case-Based Learning: *Environment and Health in Everyday Life*

Duration: 8–10 minutes

Teaching Mode: Teacher-led reading with class discussion

Case Study 1 – Air Pollution in Cities

In a large city, many cars and buses are used every day. Smoke from vehicles enters the air. Over time, the air becomes polluted. Children who live in this city may cough more often, feel tired, or have difficulty breathing. Doctors explain that clean air is essential for healthy lungs and hearts.

Key

Message:

Air pollution does not only damage the environment—it directly affects human health.

Case Study 2 – Water Pollution and Daily Life

In some areas, plastic waste and chemicals enter rivers and seas. Fish and other sea animals live in polluted water. People who eat fish from these waters may be exposed to harmful substances. Clean water is necessary not only for animals, but also for safe food and healthy people.

Key

Message:

Protecting water sources protects both nature and human health.

VARIATION 4

Extended Worksheet Task: *Health and Environment Connections*

Student Task:

Explain how each environmental problem can affect human health.

1. Air pollution can affect people by _____
2. Dirty water can cause _____
3. Too much plastic in nature leads to _____

4. Climate change can make people feel

Teacher Guidance:

Encourage full sentences and reasoning rather than short answers.

VARIATION 5

Intercultural and Ethical Context: *Caring for Health and Nature*

Duration: 5–7 minutes

Teaching Mode: Reflection and dialogue

Teacher Explanation Text

Across the world, different cultures and traditions teach respect for life, health, and nature. Although people may express these values in different ways, the core message is similar: humans have a responsibility to care for the world they live in.

In Greek cultural history, the land and the sea have always been essential for food, work, and community life. In Islamic cultural tradition, nature is often described as a trust given to humans, who are expected to protect it and use it responsibly. Similar ideas exist in many cultures and belief systems.

This shared understanding helps us see that protecting the environment is not connected to one religion or culture. It is a universal human value that supports health, cooperation, and respect among people.

VARIATION 6

Reflection Activity: *Healthy People, Healthy Planet*

Duration: 5 minutes

Student Reflection Prompts

- Clean air helps my body to _____
- Clean water is important because _____
- Protecting nature also protects _____
- One thing I can do to protect my health and the environment is

VARIATION 7

Extension Project (Optional)

Healthy Environment – Healthy Life

Project Description:

Students create a poster or short text showing:

- a healthy environment
- healthy people
- actions that connect the two