



LEARNING ABOUT FORESTS

The International Network “Learning about Forests” and the 17 Sustainable Development Goals

TEACHER'S GUIDE



Hellenic Society
for the Protection
of Nature



Foundation
for Environmental
Education

The International Network “Learning about Forests” and the 17 Goals for Sustainable Development

INTRODUCTORY NOTE

On 25 September 2015, the 70th United Nations General Assembly in New York, took a decision which could be characterized as a “...historic agreement that will affect the lives of millions of people...” (UNRIC, Sustainable Development Goals: Letter to Students). More than 150 country leaders adopted the Agenda for Sustainable Development countries and its related **17 “Sustainable Development Goals” (SDGs)**.

The **SDGs**, have emerged as a response to contemporary global challenges and include 169 targets. They are global in nature and of general application, representing a commitment of all countries to respond effectively to all global problems, with a timetable for implementation ending in 2030.

Adoption of these Goals, and commitment for their institutional implementation by all countries, developed and developing, promotes the concept of sustainability by integrating in policies all three dimensions of sustainable development, social, environmental and economic.

The “**Learning about Forests**” Programme, the Hellenic Society for the Protection of Nature (HSPN), national operator in Greece, and the Foundation for Environmental Education (FEE), international coordinator of the Programme, are committed to promote the SDGs in a joint effort towards a sustainable world, where development meets today's needs without exclusions, while preserving the future of coming generations.

In the framework of the “Learning about Forests” Network, we created this Guidebook titled ***The International Thematic Network ‘Learning about the Forests’ and the 17 Sustainable Development Goals***. It is intended as a planning tool in the hands of teachers, of all levels, who wish to promote some of the 17 SDGs, through the implementation of their programmes dealing with the general theme “Forest”. In the Guide, teachers will find indicative topic suggestions, with formulated teaching objectives that link the topic subjects to the SDGs, as well as proposals for activities to achieve their aims.

The purpose of the Guide, based on both the multidisciplinary and interdisciplinary models, is to support knowledge discovery and its association with the SDGs, through proposals for interdisciplinary work plans, and by utilising different methodological approaches that promote teamwork processes. In this context, the activities proposed are experiential in nature, aim at the active participation of pupils and involve different learning areas or courses, depending on the age and educational level.

Since the Guide is addressed to all educational levels, it is expected that its users will make modifications and changes to the content, and that teachers will adjust relevant suggestions once to the age of their students.

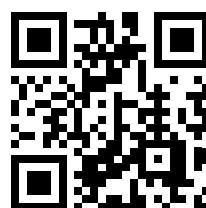
In support of the Guide, you can also use other educational material of the Network, which is currently available only in Greek. You may find the material on the following webpage: <https://eepf.gr/el/tomeis-drashs/ekpaideftika-programmata/mathaino-gia-ta-dasi>

Indicatively, the material that teachers can refer to includes:

- The 4-page leaflet of the "Learning about forests" Network
- The leaflet "Environmental path"
- The activity book
- The book "Forests in Greece"
- The book "The Rocks in Simple Words"
- The book "With the forest as my guide, I act, I do, I create"
- The educational material "The game as a means of environmental awareness, sport and action"
- The Network poster- "Treasure Hunt Game in the Forest"



Teachers from schools located outside Greece that are interested in the LEAF Network can find more info, material or the contact of their National Operator at: <https://www.leaf.global/>



Please note that the International Network "Learning about Forests" is approved by the Ministry of Education and Religious Affairs (MERA, decision no Φ7/ΕΠ/60884/88845/Δ7, 21-07-2021.) and in Greece the responsibility of coordination rests with the HSPN and the B' Athens Secondary Education Directorate.



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NATIONAL OPERATOR



**Hellenic Society
for the Protection
of Nature**

www.eepf.gr

FOUNDER OF THE PROGRAMME



**Foundation
for Environmental
Education**

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ISBN 978-960-7197-34-4



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Opening the Guide

Dear teachers,

The Hellenic Society for the Protection of Nature and the 'Learning About Forests' Network created this Guide to facilitate you in your endeavour to enrich an Environmental Education (EE) or Education for Sustainable Development (ESD) programme related to the topic "Forest", with activities and support actions complementary to the 17 SDGs.

To get the most out of the material, we suggest you follow these steps:

- **STEP 1:** Look for the SDG you are interested in. All SDGs are indicated with their title and pictogram.
Note that, under the heading "TEACHING OBJECTIVES" (green box), the first reference is to UNRIC's general statement on this objective. Evaluate if it is in line with your aims and select it.
- **STEP 2:** Look for these SDGs that match your group in the "TEACHING OBJECTIVES" field (green box). If you find it necessary, customize or specify them. Link them to your own goals, which frame the programme you are developing.
- **STEP 3:** In the field "CONTENTS - INDICATIVE TOPICS" (yellow box), you are offered titles or indicative sub-themes that can frame your program. These themes are in no way mandatory for the implementation of an EE Programme within the "Learning about Forests" Network. They are there only for your convenience.
- **STEP 4:** In the field "METHODOLOGY - INDICATIVE ACTIVITIES" (light blue box) you will find suggestions for activities related to the teaching objectives. Their implementation methodology is indicated in bold (for example, Case Study, Role Playing, etc.). Specific details and instructions on how to approach each methodology may be found in the book "Guide for the Development of Interdisciplinary Environmental Education Activities" (Fermeli, G., Roussomoustakaki-Theodorakis, M., Hadjikosta, K., Gaitlich, M. (2009), MERRA-Pedagogical Institute, or at: <http://www.pi-schools.gr/books/dimotiko/perival/1-40.pdf>

You can choose among the proposed activities those that you consider consistent with your students' developmental level. If need be, you can customise them to your theme. In addition, as you go over the Guide, you will find more methodological suggestions that may not be included under the specific SGD you selected but could give you ideas for other activities. After all, as you can see, there many SDGs are conceptually related to, and complemented one another. For example, SGD 5: "Gender equality" is conceptually related to SGD 10 "Reduced inequalities", and SDGs 1: "Zero poverty", 2: "Zero hunger" and 8: "Decent work and economic growth" can complement each other

In addition, for the implementation of your activities you can make use of the Network material available at: <https://eepf.gr/el/tomeis-drashs/ekpaideftika-programmata/mathaino-gia-ta-dasi> but also the material include in: "A Guide to implementing the new Environmental and Sustainability Education Curriculum (ESE)" Spyropoulou - Katsani, D., Koskolou, A., Mitsis, P., Pavlikakis, G., Fermeli, G. (2014). (MERRA – **Pedagogical Institute**), available at: repository.edulll.gr/edulll/bitstream/10795/1855/2/1855_%CE%9F%CE%94%CE%97%CE%93%CE%9F%CE%A3_%CE%A0%CE%95%CE%91%CE%91_%CE%94%CE%97%CE%9C_%CE%93%CE%A5%CE%9C%CE%9D.pdf

Finally, keeping a Logbook is a good practice in programme implementation. We recommend creating a logbook-tool, where you will record data during all phases of the programme (planning, objectives, activities, implementation, actions, evaluation, dissemination, etc.) with notes on the strengths and weaknesses of the programme, visual material, developments, etc. This Logbook will, among other things, assist you in the final evaluation of your programme and provide a basis for your future plans.



**How can I approach the subjects
of the 17 "Sustainable Development Goals"
by running a programme for students
around issues concerning the forest**

TEACHER'S GUIDE

Goal 1: **No Poverty**

TEACHING OBJECTIVES

Students should:

- Understand the need for the eradication of any form of poverty across the world.
- Connect forests to the survival and development of local economies.
- Understand forests as a national and global capital.
- Understand the effects of forest over-exploitation.
- Understand the necessity of sustainable planning and, consequently, the control of the operators involved in forest management.

CONTENT - INDICATIVE TOPICS

- Sustainable forest management
- The forest as a natural resource
- Old and contemporary professions related to forests

METHODOLOGY - INDICATIVE ACTIVITIES

Case study: Investigate the socio-economic impacts in a community after the destruction of a forest or the changes in economy as the result of forest restoration.

Interview: Converse with residents and professionals who work near a forest area.

Map of ideas: Connect the forest to professions and other activities that can economically benefit a place and develop the topic.

Pivot Table: Explore the consequences of over-exploitation of a forest and suggest solutions.

Role-playing game: Create scenarios about what you have researched and take on the roles of, for example, a forester, the community leader/mayor, the local inhabitants, the students, an interested investor, a local professional person, a producer, a member of a local cooperative business, etc.



Goal 2: **Zero Hunger**

TEACHING OBJECTIVES

Students should:

- Understand the need to fight hunger, to achieve food security, to ensure quality in nutrition and to promote sustainable agricultural economy.
- Connect nutrition with specific forest products.
- Learn about professions exercised near forests that are related to nutrition (e.g. livestock farming, beekeeping, and others) and to reflect on how they can be carried out in order not to cause damage to forest ecosystems.
- Connect forest destruction to the degradation even of the human food chain.

CONTENT - INDICATIVE TOPICS

- Sustainable management
- Fruit, seeds, forest herbs and mushrooms
- Forest and professions related to natural resources

METHODOLOGY - INDICATIVE ACTIVITIES

Map of ideas: Connect the forest to food products and related professions.

Research: Learn about the nutritional value of goods coming from the forests. Explore how it is possible to harvest and use forest resources without threatening the forest ecosystem.

Field study: Observe whether agricultural or livestock farming activities impact or threaten the forest ecosystem.

Debate: Raise questions like, "Expansion of cultivation into forest areas", "Free grazing in

the forest", "Placing beehives in the forest" etc. and look at their pros and cons.

Summary table: Consider the consequences of a forest disaster on the quantity and quality of certain nutritional goods in an area. Suggest possible solutions.

Work plan: Draw a "Forest and cooking" work plan. Find and try to prepare food or pastry recipes with mushrooms, wild greens, herbs, fruits of the forest. Organise an event, such as a tasting festival.



Goal 3: **Good Health and Well-being**

TEACHING OBJECTIVES

Students should:

- Understand the need for securing human health and promoting the well-being of all ages.
- Connect forests with human health.
- Understand that forests enhance quality of life.
- Understand the value of forests as recreational sites.

CONTENT - INDICATIVE TOPICS

- Forest and health
- Medicinal plants and herbs of the forest
- Air quality

METHODOLOGY - INDICATIVE ACTIVITIES

Field visit: Organise a visit to the forest. Follow a trail. Play sensory games, like listening closely to sounds and identifying them, feeling the air on your face and finding its direction, recognising smells, caressing tree trunks etc.

Artistic expression: Describe your experience in some way (essay, painting, poem, photo exhibition).

Research: Search for information on the healing properties of forest plants. Find books on traditional medicine. Contact specialists, such as herbalist healers, etc. Plant herbs in your garden.

Field study: Examine whether the forest you visit has appropriate and well-maintained

infrastructure for recreation, such as walkways, rest areas, observation towers, etc. Notice whether access is possible to people with disabilities.

Questionnaire: Create a questionnaire to research if and to what extent the forest is used for recreation by locals or residents of other areas.

Action: Visit a hiking, cycling or mountaineering club. Organise an open-to-public recreational activity in the forest with the help of specialists and the local community.

Dramatisation: After gathering information, play a game about respiration and transpiration of plants.



Goal 4: **Quality Education**

TEACHING OBJECTIVES

Students should:

- Understand the need to ensure equitable and inclusive quality education and promote lifelong learning for all.
- Recognise the forest environment as a place of experience and learning.

CONTENT - INDICATIVE TOPICS

- The forest as a classroom
- With the forest as guide I Do, I Act, I Create
- I visit the forest and learn within it, about it
- The pedagogy of "Forest Schools"

METHODOLOGY - INDICATIVE ACTIVITIES

Utilizing the educational material and the back-pack of the "Learning about Forests" Network you can design and implement:

Environmental trail: Plot an environmental trail in the forest and discover new knowledge while following it.

Treasure hunt game: Organize a treasure hunt game in the forest and discover its secrets.

Field study: Visit the forest, equipped with measuring and observation instruments, and conduct research.

Sensory games: Try to get acquainted with and recognize the forest with your senses.

Action: Become a "Forest School" for a week. Contact, search for information and collaborate with other "Forest Schools".

Photo exhibition: Photograph trees, plants, animals and whatever else motivates your interest during your visit, and create a folder listing relevant information that you research after completing your visit. Organize a presentation to share your experience

Digital Herbarium: Create a digital herbarium. You may use photos on the platform: <https://www.greekflora.gr> to identify the plants

Observation: Visit an animal or bird observation tower, if one exists nearby.



Goal 5: **Gender Equality**

TEACHING OBJECTIVES

Students should:

- Understand the need to achieve gender equality and empower women and girls.
- Work together without gender discrimination.
- Recognise that both similarities and differences are an added value for achieving a group's goals.
- Overcome preconceived perceptions of gender characteristics.

CONTENT - INDICATIVE TOPICS

- Together in the forest

METHODOLOGY - INDICATIVE ACTIVITIES

Organize your groups so that both genders are equally represented. Plan activities in such a way that all students, male and female, have the opportunity to participate, express themselves, engage and exploit to the same extent their particular abilities.

Detect and modify alternative ideas: Choose popular folk or traditional fairy tales, e.g. "Little Red Riding Hood", "Tom Thumb", "Peter and the Wolf". Analyse the characteristics of the heroes. Change the fairy tales, alternating the heroes' gender and narrate them again. Have there been any changes in the plot due to this change of heroes? Discuss the causes of this change. Discuss whether the ideas put

forward about gender-based plot differentiations are objective.

Research: Look for professions that are traditionally considered "male" and "female", as well as other forest-related activities (such as foresters, forest fire-fighters, loggers, volunteers in forest watch, etc.). Examine whether both genders are represented in these areas, and to what extent. Identify women who become active in traditionally "male" professions/activities and contact them via mail or the Internet, so they can describe their experiences.

Action: Create a poster to encourage more women volunteering for forest protection.



Goal 6: **Clean Water and Sanitation**



TEACHING OBJECTIVES

Students should:

- Understand the need to ensure the availability and sustainable management of water and sanitation infrastructure (drainage).
- Understand the contribution of the forest to the water cycle.
- Perceive the extent to which the existence of forests contributes to the conservation of reserves and good quality of drinking water.
- Understand the importance of direct access to drinking water.
- Identify hazards that threaten the above ground and underground waters due to the destruction of forests.
- Recognise the importance of protecting natural sources of drinking water and underground deposits.

CONTENT - INDICATIVE TOPICS

- Forest and water

METHODOLOGY - INDICATIVE ACTIVITIES

Photographic study: View aerial photographs of forested areas and locate streams, rivers and other indications of surface water. Find out whether these sources are used in some way in the water supply of a region, for irrigation, etc. Connect your research with the water cycle.

Motion games: Play water transport games, gradually increasing the difficulty of the route. Discuss the importance of direct access to water.

Map of ideas: Create a map of ideas by connecting the tree to the water cycle.

Field visit: Look for streams, brooks, etc. in the forest. Search for natural fountains. Find out if their water is drinkable. Investigate if there are wells or other sources of water nearby, and the quality of their waters. Find out if they have the same use today as in the past. Ask a specialist to find out how these water sources

are connected with the forest nearby. Look in narratives of older local people for cases where the destruction of the forest affected these waters. Find folk or cultural material on water uses in the past. Investigate whether these waters are still being used today. If not, look for the causes and consequences.

Case study: Search for sources of information on how a forest fire or deforestation affected the water reserves or quality in an area. Record the consequences and costs (in health, economy, social life).

Pivot table: Create a data table with the concepts of Forest, Benefits (in terms of water sources), Consequences (on waters from forest destruction), Suggestions, Actions.

Action: Plan an awareness campaign on the subject.



Goal 7: **Affordable and Clean Energy**

TEACHING OBJECTIVES

Students should:

- Understand the need to ensure for everyone access to affordable, reliable, sustainable and alternative forms of energy.
- Become aware of environmentally friendly forms of energy and identify those that are associated with forests.
- Identify problems that arise in forest ecosystems from the use of non-friendly forms of energy.
- Research the requirements and conditions for producing energy without threatening forests.
- Suggest alternative forms/sources of energy to replace those detrimental to the environment.

CONTENT - INDICATIVE TOPICS

- Forest and energy
- Biomass for energy production
- Dams and hydroelectric plants: pros and cons
- Acid rain
- Photochemical smog
- Environmental and economic consequences of the use of firewood
- Renewable energy sources: wind, hydrodynamics

METHODOLOGY - INDICATIVE ACTIVITIES

Research: Search for information about alternative forms of energy. Investigate how they relate to forests. Are there any problems and if yes, which ones? Which solutions are proposed?

Comparison of opinions: Create a histogram to link the traditional forms of energy to problems within the forest ecosystems. Do the same for alternative forms of energy. Discuss within the group the advantages and disadvantages. Organise a debate by arguing in favour of both types of energy. Come to a resolution.

Field study: Search the forest for signs of degradation due to air pollution.

Simulation: Discuss the problem of acid rain. Search for photographic material and con-

nect the phenomenon with the air pollution. Try watering a pot with acidic water. Record your observations.

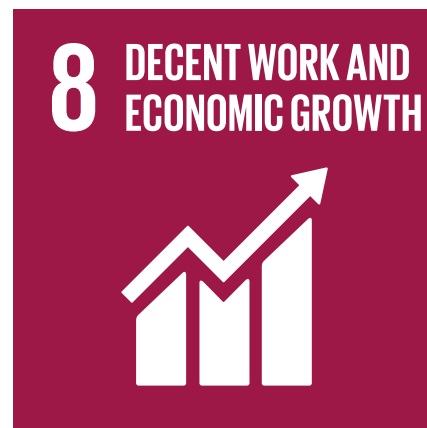
Create a script: Look for press reports about the problems that arise from the use of firewood for heating in an area. Link this practice to health problems, illegal logging, etc. Suggest more acceptable solutions for domestic heating. Create a script and present an animated movie, a theatrical play or an illustrated story about the subject.

Case study: Research the construction or operation of a hydro-electric dam. Identify the advantages and disadvantages. Discuss the conditions for creating such projects.





Goal 8: **Decent Work and Economic Growth**



TEACHING OBJECTIVES

Students should:

- Understand the need to promote lasting, inclusive and sustainable economic growth, full and productive employment and ensuring decent work for all.
- Learn about the forms of seasonal work in forests, and evaluate this form of employment.
- Link the existence of forests to the creation of job positions.
- Link forests to various forms of sustainable entrepreneurship.
- Acknowledge the notion, conditions and mode of operation of "Fair Trade".
- Reflect on the conditions required for forests to support job positions also in the future.

CONTENT - INDICATIVE TOPICS

- Forest economics
- Fair trade and forest

METHODOLOGY - INDICATIVE ACTIVITIES

Some of the activities described are also included in SDG 1. Pay attention to the work conditions of various professions. Connect the issue with emigration.

Research in sources: Traditional professions of the forest. Find photographic material, narratives and records linking the forest to various professions. Identify which of them survived in time and how they are enacted today, which have disappeared and why, which have been replaced by others, and by which.

Interview: Discuss with residents and entrepreneurs who work near a forest area.

Case study: Locate a "Fair Trade" business with the help of the Internet. Find which job positions it

secures, how workers are employed and paid, what is different from other types of entrepreneurship.

Map of ideas: Link the forest with professions and other activities that can economically benefit a place and develop the theme.

Record: Collect data on how the population (permanent residents, visitors, holidaymakers) fluctuates in an area adjacent to a forest, and how this reflects on the economic and professional activity of the place.

Role-playing game: Create scenarios related to what you have researched and take on the roles of the forest manager, the community leader/mayor, the inhabitants, the students, a stakeholder, a local professional, etc.

Goal 9: **Industry, Innovation and Infrastructure**

TEACHING OBJECTIVES

Students should:

- Understand the need to promote the construction of sustainable infrastructure, sustainable inclusive industrialization and innovation.
- Reflect on the necessity and consequences of major projects in forest areas.
- Compare the benefits and consequences of the expropriation of forests for the needs of industrialization or construction of large works.
- Focus on the problems that have arisen from past interventions in forests for the needs of industry and their consequences for forest ecosystems.
- Seek information about the possibilities of rehabilitation after intensive forest use for industrial production.
- Suggest ideas to replace production facilities in forests with more sustainable ones.
- Understand the necessity of sustainable planning and control of the operators acting within the framework of forest management.

CONTENT - INDICATIVE TOPICS

- Forest and road arteries
- Production facilities and forest Restoration of the landscape
- Mining

METHODOLOGY - INDICATIVE ACTIVITIES

Field study: Visit a forest area that has been damaged for the needs of a major work. Record your remarks. Where do the alterations occur most frequently? Are they reversible and to what extent?

Role-playing game: Look for traffic arteries on the map and notice how they connect, among other things, places where products and goods are manufactured with distribution sites. Select a section crossing a forest area and collect information on whether and how the forest ecosystem is affected. Investigate if practices have been followed to limit these effects, and what they include. Compare with the age of the streets.

Using this information, play a role-playing game in which you are required to redesign a road as engineers, suggesting improvements and presenting your plans to a citizens' committee.

Landscape study: Select a viewing point for an area that has been restored after a mining or production facility operation. Compare the view in front of you with photographic material before and during the human intervention as well as after rehabilitation. Call on a specialist to help you with the landscape interpretation.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



Comparison of opinions: Once you have investigated the operation of a plant or mining facility in an area within or near a forest, divide in two groups; the first should explore the pros and cons from the operation of the facility, the second should explore the modern practices about the operation of such facili-

ties. Present arguments on the need to maintain, remove or redesign the facility. Reach a resolution - "contract" that records the conditions and terms under which the facility should remain, or the reasons for which it should be removed.



Goal 10: **Reduced Inequalities**

TEACHING OBJECTIVES

Students should:

- Understand the need to reduce inequalities between, and within countries.
- Accept the presence of "others" by recognizing the equality of people in terms of rights and obligations.
- Collaborate harmoniously with others and discover the value of diversity.

CONTENT - INDICATIVE TOPICS

- In the forest together
- The forest knows no borders
- Not all trees are the same

METHODOLOGY - INDICATIVE ACTIVITIES

Design your programme targeting both in-school and inter-school collaborations (general, special, intercultural, minority schools).

Use your programme to create communication channels with other students.

Action: "Children of the city visit the forest" and "Children of the forest visit the city". Students record their experiences and are asked to make assumptions about the everyday life

of children living permanently in the environment they visited.

Theatrical game: Visit a forest area and observe the differences in trees (different heights, species, deciduous and evergreen, straight or inclined, etc.). Discuss the importance of this variety. Create a script that focuses on this diversity and present it with a play. Can you extend the activity to the society of humans?



Goal 11: **Sustainable Cities and Communities**

TEACHING OBJECTIVES

Students should:

- Understand the need to make cities and human housing safe, durable and sustainable.
- Explore how forests contribute to improving the quality of cities and settlements.
- Realise that forests can protect cities and settlements from natural disasters.
- Know which human activities can weaken the ability of forests to act beneficially to the quality of life of the inhabitants of a city or settlement.
- Suggest actions.

CONTENT - INDICATIVE TOPICS

- Traditional settlements near forests - what they can teach us
- The forest as a protecting shield for the settlements around it
- Streams and natural disasters
- Forest fires

METHODOLOGY - INDICATIVE ACTIVITIES

Field study: Explore a traditional settlement near a forest. Observe the building materials, the design of the houses and the spatial planning of the area.

Try to interpret the relationship between the dwellings and the adjacent forest. Do the same in a modern settlement. Do you detect any differences? Do these benefit the quality of life or not? What would you change? Does the construction increase the risk in case of a fire?

Questionnaire: Become journalists, design a questionnaire and interview residents of your city/district about modern issues such as transportation, health, green spaces and recreation, unemployment. Evaluate the answers and try to investigate whether any of these problems would improve if your city/district bordered on a forest or if a nearby forest was used in a different way.

Research: Compare the microclimate in parts of your city near a forest, to other places, far from it.

Alternatively, make comparisons between different cities/settlements. Record your observations and discuss to what extent the quality of life of residents is affected.

Research in sources: Search the web for the consequences of a severe weather phenomenon in a settlement after a devastating fire.

Action: Adopt a stream. Identify sites where human interference can cause problems. Take action to improve the conditions.

Poster: Design a poster about forest conservation, focusing on its role as a protecting shield against natural disasters.



Goal 12: **Responsible Consumption and Production**

TEACHING OBJECTIVES

Students should:

- Understand the need to promote sustainable models of goods production and responsible consumption.
- Know the cycle of production and delivery of goods coming from the forest.
- Separate their desires from their needs.
- Consider proper resource management.
- Discover ways to conserve resources.
- Create a responsible consumption protocol.
- Acknowledge the notion, conditions and mode of operation of "Fair Trade".

CONTENT - INDICATIVE TOPICS

- Sustainable forest management
- Reduce, Reuse, Recycle of materials
- Desire or need?
- A "Fair Trade" business at school

METHODOLOGY - INDICATIVE ACTIVITIES

Research: Collect materials for daily/ household use that are derived from forest resources. Discuss how they are produced, how they are used and their duration. Focus on paper packaging materials. Separate materials that are necessary from those used for promotional and marketing purposes.

Research in sources: Learn about good practices that lead to waste reduction. Search for information about where materials that are not properly managed end up. Suggest solutions.

Simulation: Make recycled paper. Identify which steps of the paper-making process are avoided in this way and what the benefits are for forests from recycling practices.

Action: Collect raw materials from materials derived from forest resources (such as wood and paper) that are now useless, and reuse them, creating new functional constructions. Expand your action in "Fair Trade". Design a business based on the "Fair Trade" principles, through which you could distribute your products. Make a marketing plan that includes the sources (raw materials - capital), producers, customers, means of disposal, advertisement and management / distribution of profits.

Concept map: Construct maps of concepts using as keywords: "reduction" (of consumption), "re-use" and "recycling".

Radio message: Create a slogan promoting responsible consumption to be played on radio or other networking media.



Goal 13: **Climate Action**

TEACHING OBJECTIVES

Students should:

- Understand the need to take immediate action to combat climate change and its consequences.
- Know the factors which influence climate change.
- Know the factors which can affect the climate of a place.
- Understand the role of forests in shaping the microclimate of an area.
- Understand the role of forests in reducing greenhouse gases.
- Reflect on the climate consequences of forest destruction.
- Commit to actions that protect forests and the climate.

CONTENT - INDICATIVE TOPICS

- Forest and climate relationship
- Climate change, water scarcity and forest fires: A vicious circle
- Microclimate changes due to reduced forest cover
- The forest as a CO₂ reservoir

METHODOLOGY - INDICATIVE ACTIVITIES

Mental stimulation: Collect your existing knowledge about "weather", "climate" and "climate change". Confirm the correctness of this knowledge.

Record: Collect data on wind, precipitation and temperature prevailing in your area for a certain period, and connect them to your local climate. Collect relevant data for the same period in a forest area. Compare the results.

Simulation: Play simulation games or create simulation models with simple materials that explain how trees contribute to the decomposition of CO₂ and connect this function to the

reduction of greenhouse gases in the atmosphere.

Case study: Collect information about the consequences on global climate of deforestation (e.g. in the Amazon basin).

Collage: Using photos, create a composite diagram to illustrate the relationship between climate change, water scarcity, forest fires, and forest cover reduction. Show your work in a communal space.

Eco Code: Create an Eco Code for forest protection.



Goal 14: **Life Below Water**

TEACHING OBJECTIVES

Students should:

- Understand the need to promote the conservation and sustainable exploitation of oceans, seas and marine resources for sustainable development.
- Become aware of aquatic ecosystems near forests.
- Identify how aquatic and forest ecosystems interact.
- Be concerned about the effects on these ecosystems resulting from human intervention and over-exploitation.
- Think about what initiatives they can take to protect forest and aquatic ecosystems.

CONTENT - INDICATIVE TOPICS

- Seaside and lakeside forests
- Riverside forests

METHODOLOGY - INDICATIVE ACTIVITIES

Field study: Visit a seaside, lakeside or river-side forest and observe how elements of the two ecosystems (plants, insects, fish, reptiles, amphibians, birds, mammals) interact with each other.

Grids: Play a game of grids (spider) linking the forest with the aquatic ecosystem. Then create a collage capturing the grid you described.

Aggregate map: Record the possible causes of forest degradation and the potential risks that will arise in the aquatic ecosystem from this degradation.

Do a corresponding activity on the causes of forest degradation and the consequences in the water ecosystem. Suggest solutions to avoid degradation.

Action: Organize a clean-up day or campaign.



Goal 15: **Life on Land**

TEACHING OBJECTIVES

Students should:

- Understand the need to promote protection, restoration and sustainable use of soil; sustainable forest management; the fight against desertification; the need to stop and reverse land degradation; and efforts to halt the decline in biodiversity.
- Understand the role of the forest in soil retention.
- Become familiar with protected and endangered plant and animal species.
- Become aware of factors, including human intervention, that threaten biodiversity and geodiversity in some areas.
- Understand the consequences of this degradation.
- Understand the role of the forest in protecting soil quality and avoiding desertification.
- Take action to protect species of animals and plants.

CONTENT - INDICATIVE TOPICS

- The forest as a cradle of life
- Forest and soil
- Reforestation
- Protected areas of various forms and their management
- Natural and anthropogenic hazards for the forest: fires, trespassing, uncontrolled logging, illegal hunting, mass tourism, etc.

METHODOLOGY - INDICATIVE ACTIVITIES

Research: Collect information about the rocks of your area and connect them with its forest cover.

Field study: Visit the forest and observe the stratification of the soil. Study the surface layer. Identify life forms in it and seek information about their contribution to soil quality. Discover places where you can observe the decomposition process.

Observation/simulation: Observe the root system developed in a pot. Place soil in a similar pot and water both intensively. Observe how the root system holds the soil. Correlate to the role of forests.

Mental stimulation: Observe aerial photographs from excavated areas and discuss your impressions.

Record: Create a table, displaying with text and images endemic species of your area (forest plants or animals) and the dangers that threaten them. Create a biodiversity map.

Interview: Get in touch with people who are active in NGOs of your area active in flora or fauna protection, and collect information. Learn about their actions and volunteering.

Record: Identify the National Parks on the map of Greece. Discuss about their value and protection.



Dramatization: Create an interview scenario from endangered species and present a "TV" show.

Event: Organize an event about the need to protect a local plant or animal under threat, and design a presentation action



Goal 16: **Peace, Justice and Strong Institutions**

TEACHING OBJECTIVES

Students should:

- Understand the need to create peaceful, inclusive societies for sustainable development, to promote access to justice for all, and to build effective, responsible and inclusive institutions at all levels.
- Understand the need for a legal and institutional framework for forest protection.
- Get acquainted with the legal framework concerning forests.
- Get acquainted with the institutions that are responsible for protecting forests.
- Reflect on open legal issues relating to forests.

CONTENT - INDICATIVE TOPICS

- A look at yesterday: The protection of forests in ancient Greece
- Forest and legislation
- Institutions responsible for forest protection
- Managing Bodies of Protected Areas
- Protected Areas
- Aesthetic forests
- The advocate of the forest

METHODOLOGY - INDICATIVE ACTIVITIES

Research in sources: Find myths and references since antiquity about the protection of forests or trees. Dramatise the myths that impressed you.

Record: Search for the national legislation regarding the protection of forests and create a brief code with the most important articles. Record the competent authorities.

Interview: Contact a representative of an authority responsible for forest protection and ask questions about the drafting and implementation of laws.

Consultation: Take on the role of MPs of the majority and the opposition in an imaginary parliament, and propose a law to protect a forest. Conduct consultations by discussing the pros and cons and conclude with a voting in favour or against this law.

Role playing game: Identify a human intervention that raises concerns in a forest area and organize a court proceeding where you will decide in favour of the forest or the person/s who made the intervention



Goal 17: **Partnerships for the Goals**



TEACHING OBJECTIVES

Students should:

- Understand the need of strengthening the implementation means and of revitalising the international relationships aiming at achieving sustainable development.
- Become acquainted with institutions active in forest protection within and outside the country.
- Understand that forest protection is a European and global issue, for which there is international cooperation at various levels.
- Identify cases of such cooperation that are relevant to our country and find relevant information.
- Feel that, as citizens of the world, they have a say in relevant initiatives.

CONTENT - INDICATIVE TOPICS

- Forest and European Institutions Natura 2000 network sites
- Life Programme
- Protection of World Heritage Sites
- International Conventions, which Greece has adopted (Ramsar Convention, Barcelona Convention, Bern Convention)

METHODOLOGY - INDICATIVE ACTIVITIES

Research in sources: Learn about world heritage sites related to forests and explore the processes by which such a recognition is made.

Scenario: Choose a forest that you believe is worth being under the protection of international institutions and argue to that effect.

Field visit: Find out about Natura 2000 sites near you. Choose some of them and learn about their inclusion status. Visit these areas.

Article: Become journalists and write an article about a Life project implemented in your area.

Map of ideas: Create a map where you will capture the European institutions and the most important EU interventions for forest protection.

Comparison of opinions: A law designed in the European Parliament for the protection of forests has a negative impact on your area, where a significant part of local economic activity is based on forest exploitation, even if it is not always done with good practices. Create the relevant scenario and argue for or against whether your country should vote for it.

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Complementary to the "Guide", teachers can use other educational material of the Network, which can be found in the website of the Hellenic Society for the Protection of Nature at the following link:

<https://eepf.gr/el/tomeis-drashs/ekpaideftika-programmata/mathaino-gia-ta-dasi>



SUSTAINABLE DEVELOPMENT GOALS

