



LESSON PLANS FOR YOUTH WORKERS

Project number: 2020-3-R001-KA205-094853

MODULE 1: Human impact in natural systems – environmental challenges

DGT ASSOCIATION



Project Information

PROJECT: GreenACT

PROJECT TITLE: Youth 'agents of change' on Climate Action and Environmental Sustainability

ACRONYM: GreenACT

PROJECT WEBSITE: <https://greenactproject.eu/>

PROJECT NO.: 2020-3-R001-KA205-094853

PROJECT COORDINATOR: ASOCIAȚIA D.G.T



Module 1: Human impact in natural systems – environmental challenges	
Topic 1: Different Ecosystems and their Importance	
Lesson Plan 1 – Presentation of ecosystems and their importance	
Duration: 90 minutes - 30 minutes of indoor activities and 60 minutes of outdoor activities	
Short Description of the Lesson	The topic presents the definition of the ecosystem, the different types of ecosystems and the importance of the different ecosystems. The first part of the lesson aims to be an introductory section of the overall document, bringing forward the key elements treated and making sure to differentiate the different types. This is followed by more defined information on the reasons behind the importance, and the roles of the ecosystem and finalising with a conclusion.
Learning Goals:	To offer the needed tools to be able to tell what an ecosystem is. To differentiate the different types of ecosystems. To be aware of the importance of ecosystems.
Target Group -	Youth Workers between 16 and 25 years old
Educational Approach	This will be implemented using non-formal methods. The theoretical part will be accompanied by a ppt presentation (course support).
Link to School Curricula (if applicable)	
Facility/ Equipment	<ul style="list-style-type: none"> ● Classroom ● Internet access ● Projector ● Flipchart
Tools/ Materials	<ul style="list-style-type: none"> ● Pens ● Markers ● Flipchart paper ● Paper sheets ● Post-its
The main tasks	<p>1. <u>Explore your area! Ecosystem reflections</u></p> <p>Participants are divided into groups of 3-4 people. The task is to explore the community and to find out what types of ecosystems can be found. Remind the participants to not only stick to the big ecosystems presented before, but to take into consideration the</p>

smaller ones as well, such as the bacterial ecosystem, flower ecosystem and so on (abiotic or biotic). Time needed:

- 30 minutes to explore the community
- 30 minutes for discussion

Possible questions for debriefing:

1. What did you do?
2. What types of ecosystems did you find?
3. How did you work in your team? Did you have a strategy? Which one?
4. How did you feel doing this activity?
5. What have you learned?

2. Watching the movie - How does the energy flow in the ecosystem - <https://www.youtube.com/watch?v=5jBV9vImXZI>

After watching the video, a discussion about the key elements presented in the movie can be facilitated.

3. The ecosystems

The group of participants will be split into 4 groups:

- seaweed
- fishes
- pelicans
- humans

Each group will have 2 lives and the following tasks:

seaweed - they will have 2 minutes to find a place to hide. In the moment in which they will find the place, they will not be allowed anymore to move.

fishes - they will also have 2 minutes to find a place to hide. When the activity will start their task will be to find the seaweed and to "eat" it and to hide from the pelicans and humans.

pelicans - they will also have 2 minutes to find a place to hide.

When the activity will start their task will be to find the seaweed and the fishes and to "eat" them and to hide from the humans.

humans - they will be allowed to enter the last one. They will have the task to find all the other species and to "eat" them.

Time needed:

- 2 minutes for letting the seaweed to hide
- 2 minutes for letting the fishes to hide
- 2 minutes for letting the pelicans to hide
- 10 minutes for completing the tasks
- 20 minutes for discussions

Possible questions for debriefing:

1. How was it for you to be involved in such activity?



	<ol style="list-style-type: none">2. How was it for you to follow the rules?3. What can we learn from this activity? <p>This activity can be done with species from different ecosystems (for example with species from forest ecosystems, such as: weed, small birds, predatory birds, humans).</p>
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Module 1: Human impact in natural systems – environmental challenges

Topic 2: Nature protection



Lesson Plan 2 – Biodiversity and nature protection	
Duration: 80 minutes of indoor activities (30 minutes theoretical part and 50 minutes for practical part and debriefing)	
Short Description of the Lesson	This lesson aims to bring a more theoretical overview of the situation for the biodiversity and nature protection situation, followed up by a practical section by creating an activity.
Learning Goals	To develop certain ideas regarding nature protection To develop certain types of behaviour to further protect nature and the surrounding environment
Target Group -	Youth Workers between 16 and 25 years old
Educational Approach	This will be implemented using non-formal methods. The theoretical part will be accompanied by a ppt presentation (course support).
Link to School Curricula (if applicable)	
Facility/ Equipment	<ul style="list-style-type: none"> ● Classroom ● Internet access ● Projector
Tools/ Materials	<ul style="list-style-type: none"> ● Pens ● Markers ● Flipchart paper ● Paper sheets
The main tasks	<p>Exploring the ecosystem protection in my community</p> <p>The first step of the activity - The group of the participants will be divided into small groups of 4-5 participants. Each group will have the task to find at least 5 measures that the local authority from their community takes for the protection of ecosystems.</p> <p>The second step of the activity - the same small groups of participants will now have the task to propose some new measures that the community should consider in order to protect the ecosystem.</p> <p>Time needed:</p> <ul style="list-style-type: none"> ● 15 minutes for completing the task ● 15 minutes for proposing the new measures ● 20 minutes for discussions <p><u>Possible questions for debriefing:</u></p> <ol style="list-style-type: none"> 1. What are the measures that you have found? 2. Where did you find the information describing them?



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| | <ol style="list-style-type: none">3. What are the new measures that your group wants to propose?4. What are the measures that people, in general, can take to protect the ecosystems?1. What have you learned from this activity? |
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Topic 3: Biodiversity loss

Lesson Plan 3 – Presentation of biodiversity loss and the causes	
Duration: 90 minutes - 30 minutes theoretical part and 60 minutes for practical part (quiz and debate)	
Short Description of the Lesson	This lesson aims to further explain the causes behind biodiversity loss through habitat destruction, overexploitation, climate change, pollution, agricultural intensification, and invasive species, giving multiple examples and descriptions of each subtopic.
Learning Goals	To provide specific knowledge on biodiversity To provide specific knowledge on invasive species To describe general know-how to prevent the loss of the biodiversity
Target Group -	Youth Workers between 16 and 25 years old
Educational Approach	This will be implemented using non-formal methods. The theoretical part will be accompanied by a ppt presentation (course support).
Link to School Curricula (if applicable)	
Facility/ Equipment	<ul style="list-style-type: none"> ● Classroom ● Internet access ● Projector
Tools/ Materials	<ul style="list-style-type: none"> ● Pens ● Markers ● Flipchart paper ● Paper sheets
Main tasks	<ol style="list-style-type: none"> 1. Quiz - Test your knowledge of biodiversity loss! https://populationmatters.org/test-your-knowledge-biodiversity-loss 2. https://climateprimer.mit.edu/climate-science MIT Climate Science, Risk & Solutions is an interactive, online textbook from MIT that can be used as a supplemental resource for high school teachers approaching the topic with their classes. The site offers a historical timeline, graphs, and images to tackle the science, and the slick interactive features will be engaging to teens. Students can scroll through the entire text, or jump among the topics, which are divided into sections: Climate Science, Climate Change, Risk, and Solutions. Each chapter uses different elements

to engage students; read-aloud sections, interactive graphs, and short quizzes help break up the dense text.

<https://climatekids.nasa.gov/menu/watch/>

3. **Debates** - Do you think that in the future we will be affected by climate change?

The facilitator will split the room in two, sticking down on the floor the following messages:

- I agree
- I don't agree

The participants will be invited to take part in this activity and to position themselves in the room in accordance with their answers to the next questions/sentences and to explain their answers:

- It is too late to prevent climate change.
- Is it the responsibility of the governments to protect nature?
- In the future the most affected countries by climate change will be the ones that are not so developed.
- After the COVID-19 restrictions were lifted the pollution levels decreased.
- Should people focus more on endangered species rather than on the ones that are not at risk?
- Will the effects of climate change be worse than a disease?
- The effects of climate change will drive more people into poverty.
- At the moment, over two-thirds of the land in Africa is degraded. Does this affect us as Europeans?
- Do the daily activities that we do increase climate changes?
- During the COVID-19 pandemic the climate change effects decreased.

Time needed:

- 30 minutes for debates
- 20 minutes for debriefing

Possible questions for debriefing:

- How did you feel during this activity?
- What have you learned?
- What action can you take in your daily life to protect nature?



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Topic 4: Urban & Infrastructure Pressure on Ecosystems and Biodiversity

Lesson Plan 4 – Presentation of the effect of urban and infrastructure pressure on the ecosystems and biodiversity

Duration: 360 minutes - 30 minutes for the theoretical part and 330 minutes for the practical part implemented in the community



Short Description of the Lesson	This lesson aims to show the effects that urban and infrastructure pressure have on both the ecosystems and biodiversity through short descriptions, as well as giving examples of Sustainable Development Goals that should be reached when it comes to the urbanisation movement.
Learning Goals	To give information on how the process of urbanisation works To point out the effects on the ecosystems and the biodiversity
Target Group -	Youth Workers between 16 and 25 years old
Educational Approach	This will be implemented using non-formal methods. The theoretical part will be accompanied by a ppt presentation (course support).
Link to School Curricula (if applicable)	
Facility/ Equipment	<ul style="list-style-type: none"> ● Classroom ● Internet access ● Projector ● A field to create the gardens ● Access to water sources for planting
Tools/ Materials	<ul style="list-style-type: none"> ● Markers ● Flipchart paper ● Seeds, plants ● Shovels ● Gloves
Main tasks	<p>Plant your vegetables! (in order to implement this activity, the young people will need the agreement of the local authority in order to create the city garden)</p> <p>The group of participants will be split into groups of 4-5 persons. Each group will have the task to find a place in their community that can be changed into a small garden. Together with the facilitator, the young people will need to choose some vegetables that can be gardened.</p> <p>The idea of this activity is to involve young people in their community and take advantage of the places that are not used and create a vegetable garden.</p> <p>Time needed: 1 day to plant the vegetables</p> <p><u>Possible questions for the debriefing:</u></p> <ul style="list-style-type: none"> ● How did you feel during this activity?



	<ul style="list-style-type: none">• What have you learned?• What action can you take in your daily life to protect nature?
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Module 1: Human impact in natural systems – environmental challenges	
Topic 5: Deforestation & Intensive Farming	
Lesson Plan 5 – Presentation of deforestation phenomena and intensive farming	
Duration: 60 minutes - 30 minutes for the theoretical part and 30 minutes for the practical part	
Short Description of the Lesson	This lesson brings forward a couple of aspects such as: animal impact on the cultivable lands, plant and animal species inhabitation, the logging phenomenon, as well as forest fires followed up by their causes and expansion of infrastructure.
Learning Goals	To raise awareness on the topics of deforestation and intensive farming. To offer the tools and knowledge on different types of agriculture and deforestation
Target Group -	Youth Workers between 16 and 25 years old
Educational Approach	This will be implemented using non-formal methods. The theoretical part will be accompanied by a ppt presentation (course support).
Link to School Curricula (if applicable)	
Facility/ Equipment	<ul style="list-style-type: none"> ● Classroom ● Internet access ● Projector
Tools/ Materials	<ul style="list-style-type: none"> ● Pens ● Markers ● Flipchart paper ● Paper sheets
Main tasks	<ol style="list-style-type: none"> 1. 013 ARTICLE READING How Does Agriculture Cause Deforestation, and How Can We Prevent It? https://sentientmedia.org/how-does-agriculture-cause-deforestation/ 2. The Fire in the Mediterranean Region: A Case Study of Forest Fires in Portugal: https://www.intechopen.com/chapters/55996

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Topic 6: Examples of good practices	



Lesson Plan 6 – Presentation of good practices that help to decrease the human impact on environment	
Duration: 360 minutes - 30 minutes of indoor activities and 330 minutes of outdoor activities	
Short Description of the Lesson	This lesson aims to show examples of good practices, as well as means to do them. This lesson focuses more on the practical aspect by having the participants do a concrete activity in which they have to act for a certain issue that they will pick.
Learning Goals	To offer knowledge on already existing good practices in terms of the human impact in natural systems – environmental challenges
Target Group -	Youth Workers between 16 and 25 years old
Educational Approach	This will be implemented using non-formal methods. The theoretical part will be accompanied by a ppt presentation (course support).
Link to School Curricula (if applicable)	
Facility/ Equipment	<ul style="list-style-type: none"> ● Classroom ● Internet access ● Projector ● An area in the community with garbage
Tools/ Materials	<ul style="list-style-type: none"> ● Markers ● Flipchart paper ● Laptops ● Garbage bags ● Gloves
Main tasks	<p>Take action!</p> <p>The group of participants will have the task to choose an action that they can do at that moment, to protect the environment. They will have 10 minutes to think about the action that they want to take and the necessary materials that they need (garbage bags, gloves, laptops etc.)</p> <p>Time needed:</p> <ul style="list-style-type: none"> ● 10 minutes ● 60 minutes for implementing the activity ● 20 minutes debriefing <p><u>Possible questions for debriefing:</u></p> <ol style="list-style-type: none"> 1. How did you choose the activity? 2. Which was your strategy in doing the activity?



	<ol style="list-style-type: none">3. How did you feel while implementing the activity?4. What impact do you think this activity will have on your community?5. What have you learned from this activity?
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