

*Creating an ECO online Natural Fit Virtual Programs to Prepare Students for
boostIng 21st century Skills 4 the Future (UNITY)*

2021-1-SE01-KA220-SCH-000032448

*STE(A)M-focused PBL for transferring 2021st skills for fighting against
climate change*

LESSON PLAN 4:

Take care of the Environment-Forest II

Presented by Fthia in Action team

Lesson procedure:

Date:	__/__/__
Teaching staff:	Mr/Mss/Ms
Term:	2022-2023
Week:	1
Year Level:	Primary/low secondary (6-15 years old)
Time/length	1-2 hour.
Key Learning Area:	Use of soft skills for climate change and blending interdisciplinary subjects, including science, math, art and social studies
Topic/focus:	Take care of the Environment- Reforestation.
Lesson Name: Protect the forests- How we can take care of the Environment.	
Foreseen Outcomes:	
At the end of this lesson, students will be able to:	
<ul style="list-style-type: none"> ✓ understand the roles and importance of reforestation for climate change, ✓ communicate with public authorities, persuading them for reforestation or locally planting trees, ✓ design posters and brochures, relevant to environment issues, ✓ improve their social skills, including group communication, interaction and discussion, 	
Lesson Description:	
This lesson shall demonstrate what reforestation is, how it works, where we can do it, what requirements are needed, what skills are required solidly and the most simple ways to plant a tree.	
Pre-requisites to this lesson plan (not applicable):	

Length (Lesson procedure):

This lesson will take 1-2-hour, which also includes interdisciplinary learning.

Depending on how to implement the planned lesson, the teaching shall need some materials, including videos, papers and materials for planting a tree (if needed). The teaching staff shall follow the following steps to implement the lesson successfully:

Step 1. Lead in:

Teacher greets the students, and asks what they know about reforestation. After collecting the feedback from the students, the teacher asks for grouping in accordance with the students' learning intelligence and or learning style. Here, teacher group students as:

- ✓ Group A: 2-3 students, having science learning interest/intelligence/capability/style
- ✓ Group B: 2-3 students, having technology learning interest/intelligence/capability/style.
- ✓ Group C: 2-3 students, having engineering (creativity) learning interest/intelligence/capability/style.
- ✓ Group D: 2-3 students, having art learning interest/intelligence/capability/style.
- ✓ Group E: 2-3 students, having math learning interest/intelligence/capability/style.

Note: As grouping the students, the number of students can change according to the class-size.

Lesson standard:

The lesson is standardized around STEAM-focused PBL for transferring 2021st skills for fighting against climate change. Here, we focus on the role of reforestation. Through creating and performing, the students will understand how reforestation works.

Common Core State Standards:

The teacher shall connect and correlate the lesson with the national syllabus and or program, which shall incorporate the lesson with the national program.

Enduring Understandings:

The students will understand the core ideas and philosophy behind reforestation. The learning outcomes of the lesson shall be used by the students in their future lives. Besides, the lesson is connected with following areas:

- ✓ soft skills development,
- ✓ interdisciplinary learning,
- ✓ blended/hybrid learning,

The lesson will also answer the following questions:

- ✓ Is the lesson transferable for skills development?
- ✓ Can it be teachable over and over again?
- ✓ Does it connect to real-life issues?

Essential Questions:

- ✓ What are the connections of reforestation with STEAM skills?
- ✓ What are the connections of reforestation with PBL?
- ✓ How can planting trees lead to transferring soft skills?

Before the lesson implementation, the teaching staff shall brainstorm the above questions with the colloquies at the same school.

Case section:

The teacher shall follow the following steps:

Step 1. Creation of the case:

Every summer a lot of forests are destroyed by blaze, especially in Greece. As a demonstration lesson the teacher shall use visuals, posters, videos, etc. Then, the teacher asks the following questions to the students who are grouped in “**Step 1. Lead in**”. Each question is asked to the students who are grouped from A to E.

Questions for group A (Science-minded students):

- ✓ If you plant a tree how would you do it?
- ✓ For what purposes would you plant a tree?
- ✓ Where would you plant a tree?

Questions for group B (Technology-minded students):

- ✓ How would you add technology in reforestation?
- ✓ What kind of tools would you use to plant a tree?
- ✓ What aspects of technology would you use and/or benefit in planting a tree?

Questions for group C (Engineering-minded students):

- ✓ Where would you plant a tree and for what purposes?
- ✓ Who would work with planting a tree?
- ✓ What species of trees would you plant and why?

Questions for group D (Art-minded students):

- ✓ Can you design a poster for reforestation?
- ✓ Can you compose a song for reforestation and the results it will have?
- ✓ What campaign would you run to inform about reforestation’s benefits in your local community?

Questions for group E (Math-minded students):

- ✓ How can you define the right location of a tree during reforestation?
- ✓ What calculation would you use?
- ✓ How do you calculate its cost?

The teacher first elicits the answers and then leads to the students take actions and make a sample plant from papers and other materials.

Skill focus:

During the lesson, Cognitive Skills, such as decision making, problem solving, creative thinking and interpersonal skills will be the focus.

Content:

Building knowledge on reforestation through STEAM-focused PBL approach.

Assessments:

The teacher will use summative assessments employed in this lesson to gauge student learning.

Evidence of Student Learning:

Students' learning evidence will be the quotes, graphics, pictures, prototype, song, posters etc. that they improved during the lesson.

Texts/Resources:

Teacher uses the needy sources for the implementation of this lesson: The resources/texts are to be created by the teacher (Please see the annex 1 attached under the lesson plan, which are to be used for this lesson).

Learning Activities:

A series of tasks the student will engage in over the lesson. The activities are based on what students need to understand and be able to do for the performance and are aligned to the defined standards "Take care the Environment-Forest II" and the essential questions defined under "Case section"

Practice:

Teacher will deeply explain the negative effects of climate change and the role of reforestation. Here, the teacher shall elaborate or describe the lesson using these prompts provided).

The teachers shall create a flexible learning environment for the students. Here, the teacher uses:

Warm-up: ask about the questions and make the students ready for learning for the topic-specific subject.

Practice: The teacher sets-up demonstration/modeling (I do-we do-you do)
Studio/Rehearsal/Workshop (students engage in creating/planning/refining).

Clean-up: During the procedure, the teacher walks around the class and observes the students on what they need and control. If the students have questions, the teacher answers them.

Suggested Extensions:

- ✓ The teacher may arrange an expedition and maybe plant some trees at local parks.
- ✓ The teacher may invite a specialist in reforestation.
- ✓ The teacher may arrange a visit to a forest where there is an actual reforestation.