

*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 2

:

A game about climate change

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Lesson procedure:

Date:	__/__/__
Teaching staff:	Mr/Miss/Ms
Term:	2022-2023
Week:	1
Year Level:	6 th -8 th grade
Time/length	4 hours
Key Learning Area:	Use of soft skills for creating a game about climate change and blending interdisciplinary subjects, including science, math, art and social studies
Topic/focus:	Rules for everyone to save the planet
Lesson Name: A game to save the planet	
Foreseen Outcomes:	
At the end of this lesson, students will be able to:	
<ul style="list-style-type: none"> ✓ be more responsible about the climate change learning from daily actions that can be taken; ✓ learn to create a board game; ✓ improve their social skills, including group communication, interaction and discussion, ✓ to spread the good practice (which actions can be taken) playing the game with as many students as possible. 	
Lesson Description:	
This lesson shall show students what are the basic actions to be taken to fight the problems caused by the climate change.	
Pre-requisites to this lesson plan: not applicable	

Length (Lesson procedure):

This lesson will take 4 hours, which also includes interdisciplinary learning.

The teacher shall need digital devices, paper, a printer, plastic foil, dice, cardboard, glue, scissors.

Step 1. Lead in:

The teacher will show the 17 Global Goals through an image/infographic and explain them briefly and ask students to analyze their typical actions during the day “ Do you switch off the lights when you leave a room? How often do you have a bath? Do you recycle? How? How do you go to school? Do you turn off your tap when you brush your teeth? Do you buy more food than you need? And so on ..

Then, students are divided according to their 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 small daily solutions to fight the climate change. Through creating and learning, the students will understand what become more responsible citizens.

Common Core State Standards:

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

Enduring Understandings:

The students will understand the core ideas and philosophy behind recycling. 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 the effects of climate change with STEAM skills?
- ✓ What are the connections of the effects of climate change with PBL?
- ✓ How can the study of the effects of climate change transfer soft skills?

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

Case section:

The teacher shall follow the following steps:

Step 1. Creation of the case:

The teacher analyzes the typical wrong actions made by everyone and invites the students to reflect upon them. **“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):

- ✓ What energy can be produced by the sun?
- ✓ What energy can be produced by the wind?
- ✓ What are the renewable energies to make our future lives more sustainable?

Questions for group B (Technology-minded students):

- ✓ How can I save energy at home?
- ✓ How can I recycle waste (paper waste, food waste, clothes waste)?
- ✓ What would be an ideal eco-friendly house?

Questions for group C (Engineering-minded students):

- ✓ What public transport do you use to go to school?
- ✓ What means of transport are used in your city?
- ✓ What would you do if you were the responsible of the Public Transport not to pollute the air?

Questions for group D (Art-minded students):

- ✓ How would you design a board game to teach the main rules ?
- ✓ How would you design the posts?
- ✓ How would make the cards?

Questions for group E (Math-minded students):

- ✓ How would you write the rules of the game?
- ✓ Which questions would you write on the cards?
- ✓ How many players can play the game?

The teacher first elicits the answers and then leads to the students taking actions and make a sample from papers and other materials of how the board game could be.

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 recycling 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 shows a prototype of a game to inspire students. (Please see the annex attached under the lesson plan).

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 'A Game to fight the climate change' and the essential questions defined under 'Case section'

Practice:

Teacher will ask questions about the typical actions taken by students and make them think about possible solutions and good actions to be taken daily to fight climate change.

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).

Wrap-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 decide to duplicate the board game for other classes of the Institute.
- ✓ A contest can be organized with other schools.