

*Creating an ECO online Natural Fit Virtual Programs to Prepare Students for  
boosting 21<sup>st</sup> century Skills 4 the Future (UNITY)*

*2021-1-SE01-KA220-SCH-000032448*

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

**LESSON PLAN 5: Reduce, reuse, recycle!**

*Presented by Osnovna škola Glina*

## Lesson procedure:

<b>Date:</b>	__/__/__
<b>Teaching staff:</b>	Mr/Mss/Ms
<b>Term:</b>	2022-2023
<b>Week:</b>	1
<b>Year Level:</b>	Primary/low secondary
<b>Time/length</b>	Project day (one school day)
<b>Key Learning Area:</b>	Use of soft skills for climate change and blending interdisciplinary subjects, including science, math, art and social studies
<b>Topic/focus:</b>	Importance of everyday 3`R`s
<b>Lesson Name:</b> Reduce, reuse, recycle!	
<b>Foreseen Outcomes:</b>	
At the end of this lesson, students will be able to:	
<ul style="list-style-type: none"> <li>✓ define the 3`R`s</li> <li>✓ describe difference between waste and garbage</li> <li>✓ describe means of waste management</li> <li>✓ describe machinery for waste management</li> <li>✓ describe common products made of recycled materials</li> <li>✓ design posters and commercial, relevant to topic,</li> <li>✓ improve their social skills, including group communication, interaction and discussion, improve their soft skills such as design thinking, critical thinking, decision making, efficient use of resources.</li> </ul>	
<b>Lesson Description:</b>	
This lesson shall demonstrate:	
<ul style="list-style-type: none"> <li>● What do 3`R`s represent?</li> <li>● What is the difference between waste and garbage?</li> <li>● What is considered as waste management?</li> <li>● What is a Green island?</li> <li>● What is Recycling yard?</li> <li>● What are the steps in the recycling process?</li> <li>● What are the common products made of recycling materials?</li> </ul>	
<b>Prerequisites to this lesson plan (not applicable):</b>	

### Length (Lesson procedure):

This lesson is organized as a school project day and will take 6 hour, which also includes interdisciplinary learning.

Depending on how to implement the planned lesson, the teacher will need some ICT materials (computers, tablets, etc.) and other building materials for the Eco statue. The teaching staff shall follow the following steps to implement the lesson successfully:

### Step 1. Lead in:

Teacher greets the students, and asks them to think about the importance of 3`R`s in everyday life. After collecting the feedback from the students, the teacher asks for groping 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 understanding the importance of 3`R`s and how to use it more often in everyday life.
- ✓ Through creating and performing, students will gain knowledge about how 3`R's are important for human existence.
- ✓ Regarding this, it can be expected that understanding of the topic will lead students to work on taking more care to use 3`R`s in everyday life.

### 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 curriculum.

### Enduring Understandings:

The students will understand the core ideas and philosophy behind the use of 3`R`s. Also they will find out what can be done for people to reduce, reuse and recycle more. Students will understand their role of doing it in everyday life. The learning outcomes of the lesson shall be used by the students in their future life and incorporated in their local communities. 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 do 3`R`s represent?
- What is the difference between waste and garbage?
- What is considered as waste management?
- What is a Green island?
- What is Recycling yard?
- What are the steps in the recycling process?
- What are the common products made of recycling materials?

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:

1. Teacher writes 3`R`s on the board and reads it to the students. Then he/she asks them to think and tell them how important it is to use 3`R`s in everyday life.
2. Teacher asks students to brainstorm what would happen if we don't use 3`R`s. Students can give their answers freely by raising their hand.

'**Step 1. Lead in**'. Each question is asked to the students who are grouped from A to E. Each group should have a tablet or a computer.

Questions for group A (Science-minded students):

- ✓ What do the 3`R's represent?
- ✓ What is the percentage of recycling in your country?
- ✓ What is the difference between waste and garbage?
- ✓ Who types of waste management are there?

Questions for group B (Technology-minded students):

- ✓ Research basic information about waste management.
- ✓ What is a Green island?
- ✓ What is a Recycling yard?
- ✓ What kind of waste separation containers are there?

Questions for group C (Engineering-minded students):

- ✓ Research basic information about the machinery for waste disposal and processing.
- ✓ Describe the process of the waste recycling?
- ✓ Research recyclable product labels?
- ✓ What are the most common recycled products?

Questions for group D (Art-minded students):

- ✓ Can you design a poster and a slogan to promote 3`R`s?
- ✓ Can you create a 3`R`s logo?
- ✓ Research the internet and find commercials that promote 3`R`s.

Questions for group E (Math-minded students):

- ✓ Research the internet and find quantities of recycled materials by type in your country.
- ✓ Use Excel charts and graphs to show collected data.
- ✓ Convert collected data in different units of measurement.
- ✓ What are measuring instruments used for weight measures?

When all groups are done each group presents their findings to the rest of the class. Students from other groups when each presentation is over are free to ask questions.

### 'Step 2. Make it real''

One week before the project day school will organize recycled waste gather (paper, plastic, etc.). From the gathered materials students will create a statue. The statue will represent something important for the school and will be displayed at the school entrance.

#### Skill focus:

During the lesson, Cognitive Skills, Decision Making, Problem solving, Creative Thinking and Interpersonal Skills will be the focus.

#### Content:

The content of the unit is based on the disciplinary or topic-area concepts.  
Building Knowledge through learning by doing.

#### Assessments:

Describe the diagnostic, formative, and summative assessments employed in this lesson to gauge student learning.

#### Evidence of Student Learning:

Provide a list of the process documentation that you plan to acquire during the course of the lesson. These may include photographs of students engaged in learning, drafts of student work, quotes from students, interviews of students, video, etc.

#### Texts/Resources:

The collection of short and extended works aligned to the standards and content. Examples: materials for the statue.

#### 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 "Reduce, reuse, recycle!?" and the essential questions defined under **Case section**.

#### Practice:

Teacher will deeply explain the roles and importance of the environmental impact of 3`R`s. 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.

Presentation of Work

**Suggested Extensions:**

Organize a visit to a company that is using the recycling process for making new products (Paper factory, Bottle factory, etc.).