

Subject: English (EFL)  
Teacher: Zorka Radonjić  
School: Elementary school "Kekec" Sutomore  
Form: 7th grade  
Number of lessons: 2  
Unit: U 8: Our World

### **Outcomes**

Students will be able to:

- Look for and find necessary information in the text that listens to ( who, what, where, when, how, whose, which, how many/how much, why...)
- Look for and find necessary information in the text that reads ( who, what, where, when, how, whose, which, how many/how much, why...)
- Notice the main idea/aim of the text
- Ask for and provide information
- Communicate in everyday situations in a way natural to the culture of language they learn
- Describe and compare people, places, objects, events, simple processes...
- Write short compositions

### **Cross-curricular topic**

Students will be able to:

Develop responsibility to preserve the quality of environment.

### **Key competences for lifelong learning:**

#### *2. Communication in foreign language*

**2.2.1.** Uses vocabulary, grammatical norms, and basic types of verbal interaction and registers of the first foreign language (usually English) at level A2 of the Common European Framework of Reference for Languages

**2.2.4.** Listens, reads, speaks, and writes the first foreign language (usually English) at level A2 of the Common European Framework of Reference for Languages

#### *6. Social and citizenship qualification*

**2.6.1.** Evaluates concepts, phenomena, role and importance of individuals, social groups, organizations, and institutions on social processes.

**2.6.5.** Distinguishes the causes and consequences of climate change, biodiversity change and demographic change at the local and global level.

**2.6.16.** Affirms a responsible attitude towards the environment and sustainable development.

**Material & resources:** textbooks, notebooks, blackboard, chalk, a laptop, a projector

Lesson procedure:

**Activity 1:** As an introduction to the topic, students will be asked to tell what they see in the photo (Student's Book, Unit 8: Our World). To identify and say what should and shouldn't be found on the beach. And which things shouldn't be left there.

**Activity 2:** Students will be asked to match the words with the pictures. Next, their task will be to list the given words in the right column.

Things on the beach	
Nature	Rubbish

Vocabulary		
jellyfish	fishing boat	
sweet wrapper	crisp packet	
rubbish bin	beach umbrella	
rock	plastic bag	shell
sand	water bottle	seaweed
seagull	turtle	
cardboard box	tin can	

**Activity 3:** To develop speaking skill, students will be asked to answer the following questions:  
 What does the word recycle mean? Is it important to you to recycle? Do you recycle? Can you list the materials and things you know that can be recycled?

**Activity 4:** Next, students will watch a video on the life of a plastic bottle. Video has been downloaded from the following link

<https://www.youtube.com/watch?v=erGnf7ws20E&feature=youtu.be>

Prior to watching, students will be asked to have in mind the following questions. Questions will be divided according to Costa’s differentiation. Questions will be written on the blackboard.

Level 1	Level 2	Level 3
1. We use energy and _____ to finish the process of making bottles. 2. Is it easy and simple to make a bottle? 3. Who organizes the bottles when they reach the recovery facility? 4. Is it good for people and animals to bury the plastic?	1. What do we get from crude oil? 2. Please identify the problems with littering 3. What happens when you bury the plastic in the ground? 4. Describe the process of recycling in your own way	1. Is there more than way to solve the problem of recycling plastic? 2. What would the world be like if we didn’t recycle plastic? 3. Is there a significant(important) impact of reuse of plastic on the global level? 4. Pretend you are recycled plastic. What would you like to become again? Why?

**Activity 5:** Students will discuss the given questions. They will answer them and write them down.

**Activity 6:** Students will write about their opinion on recycling plastic and what the advantages and benefits of recycling it are. They will be given guideline questions to enable the process.

Topic: Recycling plastic

1. Do you think it's important to recycle?
2. Should all people recycle? Why? Why not?
3. List at least 3 benefits of recycling
4. Do you think people in MNE are up to it?

**Activity 7:** Students analyze the compositions of the volunteers. A student (students) writes his/her work on the blackboard and the whole form analyzes it.

**Reflection:** Students' participation was great. Their answers and opinions are to the point and though the topic may seem difficult, they know a lot about it. What's more important is that they are aware of the necessity of solving the problem. Their ideas on how to do it are also very applicable.

Teacher	Miloš Pečurica
Subject	Chemistry
Class	IX
Date	April
Learning outcomes	-explain the structure of polymers, the division of polymers and the difference between synthetic and natural polymers;  -cites examples of the use of plastics;  - investigates the impact of polymers on the development and pollution of the environment;  - explains the impact of waste on environmental pollution;  -describes the biodegradability and significance of recycling.
Key competences	<i>Communication in the mother tongue</i>

	<p>2.1.7. Finds, evaluates, processes and presents data and information from various sources</p> <p><i>Digital competence</i></p> <p>2.4.3. Analyzes and compares the validity and reliability of different data sources, information and digital content</p> <p><i>Social and civic competences; Learning to learn.</i></p> <p>2.5.8. Argues the expressed opinions and positions;</p> <p><i>Social and civic competences</i></p> <p>2.6.16. Affirms a responsible attitude towards the environment and sustainable development;</p> <p><i>Initiative and entrepreneurship</i></p> <p>2.7.10. Faces challenges and problems actively, courageously and persistently, recognizing opportunities and accepting risk</p>
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Activities

1.activity

Students group and participate in a quiz to revise the acquired content (the structure of polymers, the division of polymers and the difference between synthetic and natural resources).

2.activity

Students list the examples of plastics that are present nowadays. They conclude that most of the polymeric materials in use are synthetic ones obtained on the basis of deficient fossil raw materials.

3.activity

Students draw a model of polymer molecules.

4.activity

With the help of the Internet, students explore the impact of polymers on the development of the environment and share their observations.

### 5.activity

Students get to know with the process of recycling a plastic bottle for a 3d printer – how to get a new product.

<https://youtube.com/shorts/c6Zb4cW5hOY?feature=share>

### Reflection:

Students actively participated in the activities. After they have completed the activities, students understood the importance of the topic and realized that they can contribute to the preservation of planet Earth and the reduction of waste. They have learnt that waste can be reused in many ways.

Teacher	Vera R. Pješčić
Subject	Informatika sa tehnikom
Class	VIII
Date	April
Learning outcomes	<i>*Na kraju učenja učenik će biti osposobljen da implementira programe koji učitavaju podatke iz fajla.</i>
	<i>4. Digital competence</i>  2.4.1. Explains the application of digital technologies by analyzing the possibilities, limitations, effects and risks of their use; 2.4.2. Selects digital devices, tools and software by applying the general principles, mechanisms and logic of their functions 2.4.9. It expresses openness and curiosity towards the use of digital and communication technologies and innovations, takes into account their proper use, behavior in the digital environment and the protection of data and devices. <i>7. Initiative and entrepreneurship</i>  2.7.10. Faces challenges and problems actively, courageously and persistently, recognizing opportunities and accepting risk

## Activities – Making atoms

### Step 1

Students write code using a program in which they enter the code that generates the task itself for a specific product/3D model. This program is used for 3D printing and is called a slicer. The most popular slicer is **Prusa Control**.

### Step 2

Students write a code that will enable the making of atoms. A molecule is made up of atoms (two or more) connected by electrons in a covalent bond. A molecule can consist of atoms of the same elements (an element molecule). For example, the oxygen in the air we breathe is contained in the O<sub>2</sub> molecule. It can also consist of atoms of various elements (molecule compounds) for example hydrogen (H) and oxygen (O) forming water H<sub>2</sub>O.

### Step 3

After writing the code, the 3D model scans and displays the code on the screen.

### Step 4

Then the model set to be printed is displayed on the screen. Certain adjustments are made. Such as dimensions are adjusted (width, height). After that, students should properly access the 3D model and choose one of the offered profiles for 3D printing.

### Step 5

Next, students start 3D printing.

### Reflection:

Students conclude- recycling paper, cans, plastic by using biowaste, and using renewable energy sources, we can contribute to the preservation of the environment.

Teacher	Marijana Vasović
Subject	Biology
Class	IX
Date	April
Learning outcomes	Students will be able to: - conduct research on environmental pollution in the environment; - explain the importance of preserving the environment; - conduct a campaign to preserve the environment; - explain the importance of good waste management; - assess the importance of recycling;
Cross-curricular topics	3.7 Student has an appropriate attitude for the protection, preservation and the development of the environment
Key competences	2.3.9. Perform simple experiments and report on flow, results and findings using adjustable measuring instruments

### Activities

#### Step 1.

Work on the field. Environmental action of 9th grade students.

On the map of a particular space, students indicate the places with the most waste. Then, they conduct a research on environmental pollution in the environment (students list species and major pollutants).



#### Step 2.

Students examine the origin of the waste and they take photos. One group takes photos of the material on the spot, while the other group makes flyers.



### Step 3.

Students collect bottles, sort out the plastics and transport them to school. Next, they cut them and prepare for the 3D printer.



### Step 4.

Students watch the following videos.

<https://www.youtube.com/watch?v=3a08UNnMwbw>

<https://www.youtube.com/watch?v=wdrx5CUM37I>

After watching the videos, students understand the importance of recycling, and realize that all waste is not garbage; that 90% of plastic can be recycled, and that plastic bottles need about 30-150 million years to decompose.

### Step 5.

Students use plastic bottles to make parts of the body (lung model and bone tissue model)



Review of the realization:

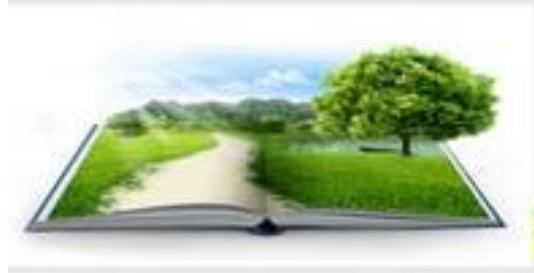
The students actively participated in the work. They learned that waste can be used for reuse.

Teacher:	Dragana Aprcović I Mirjana Bulatović
Subject:	Nature and society
Class:	IV i III
Date:	April
Learning outcomes:	Environment protection Describe the process of making, from the idea to the realization Apply the knowledge and skills to make objects (uses material and appropriate tools, the procedure itself)
Cross-curricular topics	3.7 Student has an appropriate attitude for the protection, preservation and the development of the environment
Key competences	<p><i>1. Communication in the mother tongue</i> 1.1.6. Compares terms and data from different sources</p> <p><i>4. Digital competence</i> 1.4.3. Uses various sources of information and data in the digital world</p> <p><i>5. Social and civic competences; Learning to learn.</i> 1.5.16. Builds motivation to achieve aims in problem solving in life and studying, develops self-confidence, shows readiness to problem solving and openness to changes 1.5.17. Builds attitude towards overcoming problems and finding an answer to challenges</p> <p><i>6. Građanska kompetencija</i> 1.6.5. Realizes the significance of natural resources and the protection of the environment in order to preserve the quality of life 1.6.10. Expresses opinion and attitudes about problem solving while appreciating other people's opinions 1.6.16. Emphasizes the importance of the responsible approach to environment</p> <p><i>7. Initiative and entrepreneurship</i> 1.7.1. Turns a problem/an image from his/her surrounding into an idea/activity, and with the help, predicts the results of the undertaken activity 1.7.5. Identifies the impact of his/her choices and demeanors on the community and the environment 1.7.9. Clearly communicates his/her own ideas to others</p>

## Nature Activities

### Step 1.

Students observe the picture and discover what it represents (the environment).



Students revise about the environment, what they know and what they have already learnt about it.

### Step 2.

They observe the picture and speak about their findings on the use of natural resources on the planet Earth. They list the consequences of polluting the environment. Especially, what mostly pollutes the planet.



### Step 3.

Students (in small groups) read a text and learn that trash is piled up on the planet Earth.

They exchange the ideas about the ways a human being can use or reduce certain waste.

They become familiar with the process of making compost and how to use the waste of fruit and vegetables, leaves, grass, hay...



They conclude the following: by recycling paper, tins, plastic; using renewable resources of energy we can contribute to saving the environment.

### Step 4.

A peer Alisa gets them familiar with the 3D pen which creates various 3D shapes using plastic thread. Shapes that can be used. Also, she shows them that the very same plastic can be remelted and turned to threads ready to be used again.

## Society

### Step 5.

In small groups they discuss ideas and think of the ways to use the object from their everyday lives to create something new.

After choosing the best option, they make a plan to create something new. They think about what material they need, what tools to use, and in the end, how to do it.

Picture- wood, egg box cardboard, rope, duct tape/sallotape, crayons, plasticine.



Making a windmill- cardboard, paper, glue, wooden stick.



Pen holder- a roll of toilet paper, glue, melt gun, crayons, decorative paper.



Making animals for the meadow habitat- plastic threads in colours and 3D pen.



### Step 6.

Presenting the objects to their peers (group presentations).

### Step 7.

Preparation and realization of the public class \*- Let's reduce the waste and use the possibilities- from the idea to realization.

\*A type of class where parents and colleagues from other schools are invited to attend it. Mostly due to innovative practices.

Reflection:

Students have actively been engaged. After learning about the topic, they understood its significance and realized that they can contribute to preserving the planet and reduce the waste though they are young learners. They have learnt that they can reuse the waste for many things.