



Project funded by
EUROPEAN UNION



SUSTAINABILITY

Trainer's Booklet



Common borders. Common solutions.

www.blacksea-cbc.net



BIOLEARN-BSB142
ECO-CONSCIOUS MINDS TO STOP POLLUTION
IN THE VALUABLE WETLANDS OF BLACK SEA BASIN

SUSTAINABILITY

Trainer's Booklet

Target Audience: 14+ years old

District Government of Enez

Gaziömerbey Mahallesi
Cumhuriyet Meydanı Hükümet Konağı
Enez / Edirne
Phone: +90 284 811 6006
E-Mail: enezkaymakamligi@gmail.com

Prepared By

Bilgesu Güngör Tural
Tora Benzeyen

Design

OmaOma Medya ve Yayıncılık
Erden Gümüşçü / Creative Director
Emirhan Demirci / Graphic Designer

Legal Warning


© 2021 Republic of Turkey District Government of Enez. All rights reserved. Licensed to the European Union under conditions.

The texts, images and photos in this booklet cannot be distributed or reproduced without permission. The information in the booklet can be published by referencing. The responsibility for the content of the booklet belongs to the authors.

Joint Operational Programme Black Sea Basin 2014-2020 is co-financed by the European Union through the European Neighbourhood Instrument and by the participating countries: Armenia, Bulgaria, Georgia, Greece, Republic of Moldova, Romania, Turkey and Ukraine.

This publication was produced with the financial support of the European Union. Its contents are the sole responsibility of Enez District Governorship and do not necessarily reflect the views of the European Union.

 / [biolearn2](#)

 / [BioLearn-BSB-Project](#)
-100523088197753

 www.bio-learn.org

Contents

ABOUT THE PROJECT	6
ABOUT THE BOOKLET	9
SUSTAINABILITY	10
What Is Sustainability?	11
Sustainable Practices	14
Circular Economy	19
Zero Waste	22
ACTIVITIES	26
Activity 1. Ecological Footprint	27
Activity 2. Zero Waste	32
NOTES	37
REFERENCES	38



About The Project

BIOLEARN (Eco-Conscious Minds to Stop Pollution in the Valuable Wetlands of Black Sea Basin - BSB142), which was initiated on 01.01.2020 within the scope of the first call for proposals of “Joint Operational Programme Black Sea Basin 2014-2020” where the Directorate for EU Affairs is the national authority, is led by District Government of Enez.

Representatives of the following partners are as follows:

1. District Government of Enez-Turkey
2. Division Directorate of Edirne under First Regional Directorate under General Directorate of Nature Protection and Nature Parks of Ministry of Agriculture and Forestry - Turkey
3. Foundation Caucasus Environment - Georgia
4. Agricola NGO - Ukraine
5. Green Balkans / Stara Zagora NGO - Bulgaria
6. Management Body of Evros Delta and Samothraki Protected Areas - Greece

The overall objective of the project is to provide information, experience transfer and capacity building training between partners and develop a common environmental protection and education approach, methodology and organizing campaigns that will raise awareness in the society to reduce pollution in important wetlands in the Black Sea Basin.

The main activities to be carried out within the scope of the 26-month project are as follows:

1. Establishment of a total of 4 environmental protection and training centres, one of which is on the shores of Gala Lake, and providing environmental protection training to visitors and especially to students. By providing equipment for the other 6 existing centres, there will be a network of 10 activity and training centres.
2. Workshops to be held in Bulgaria and Greece, focusing on discussions about examples of

successful training and awareness-raising campaigns for the protection of wetlands, sharing experiences and preparing the materials to be used in training which will be applied in all centres. Capacity building training for trainers.

3. Organizing massive and synchronized cleaning campaigns to reduce pollution in wetlands.
4. Award-winning photo contest and exhibition focused on wetland protection.
5. Organizing a wetland pollution-based painting contest and exhibition in primary and secondary schools.

Outputs of the Project:

1. “Stop Pollution” and “Save Nature” environmental education and activity centres, one of which is mobile, will be established in 5 countries and will sustainably carry out training and awareness-raising activities.
2. A report will be prepared on the nature and rate of pollutants in 5 wetlands in the Black Sea Basin.
3. A guide with examples of good practices consisting of training and campaigns focused on protecting wetlands will be prepared.
4. A wetland protection training set consisting of 12 sections will be prepared especially for students. Training sets will also be shared on the internet.
5. After 10 people from 2 each partner country received trainer’s training, they will train 25 people in each region (totally 125 people) and the sustainability of training activities will be ensured in the established centres.
6. A painting competition on environmental protection will be held in at least 15 primary and secondary schools and paintings selected by the jury will be exhibited.
7. Pictures taken in 5 regions with the participation of professional photographers will be exhibited. With the mobile ‘Stop Pollution’ vehicle, the exhibition will travel to 5 countries.
8. An environmental cleaning campaign will be held simultaneously with the participation of 1500 people in 5 regions.
9. With the international conference to be held in Georgia, the outputs of the project and future action plans will be shared with the public.

For more information, you can visit the project website: www.bio-learn.org





About The Booklet


This training booklet is a part of the training set prepared under the “BIOLEARN-BSB142 / Eco-Conscious Minds to Stop Pollution in the Valuable Wetlands of Black Sea Basin” project. The booklet is prepared to attract the attention of the countries in the Black Sea basin to the importance of wetlands, to prevent pollution in wetlands and to develop ecological literacy of the participants accordingly.


This training material targets groups age 14 and older and consists of two parts which are the educator booklet and participant booklet. The trainer booklet has detailed activity application instructions, necessary information on the subject, assessment questions and recommendations to enrich the activity.


Application Notes


 Before starting the activity, it is recommended to view the entire booklet and to get ready for the topic by using the information in the booklet.

 At the beginning of the activity, necessary materials and worksheets should be distributed to the participants.

 When activities are applied, it is important to undertake a facilitator/guide role and to ensure the active participation of the participants.

 The activities in this booklet are planned to be completed in a short time. All of these activities can be applied consecutively or one or two of the activities can be applied in desired order depending on the development stages and interest levels of the participants.

 Presenting the activities with a natural narrative rather than reading the information text in the instructions and keeping the interest of the participants with questions and answers would present positive benefits.

 The activity instructions can be followed exactly or adapted based on participants' ages, development stages and interest levels without diverging from the activity purposes.



Sustainability

We continue to consume the natural resources rapidly as if they are infinite. We live beyond the capacity of our planet and we exceed the limit of our planet.

What is Sustainability?

In the last two centuries, our planet has faced rapid population growth and unprecedented resource depletion. While the world population was around 2 billion in the 1920s, it has passed 7 billion in 2011. Today, only 9 years later, more than 7.8 billion people are living across our planet. The United Nations estimates that the population will be more than 11 billion in 2100.

Of course, such rapid and large population growth means feeding and meeting the needs of more people. More food, more natural resource consumption or otherwise the fact of poverty... We have consumed resources equivalent to the resources consumed in the entire human history just in the last 60 years! But the truth is that we do not have more resources and a second world!


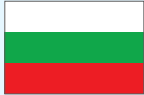
Did you know?

If every individual on earth lived like an ordinary US citizen, we would need 5 Earths. Today, we live as if we have 1.7 Earths.



We continue to consume the natural resources rapidly as if they are infinite. We live beyond the capacity of our planet and we exceed the limit of our planet. To better reveal this situation, **World Overshoot Day** is calculated every year. It is calculated as the day in which the natural resources annually used up by humans exceed the capacity that the planet can regenerate in a year. Accordingly, the day that we exceeded the world's limit in 2020 was August 22. After August 22, we start borrowing from the next year. The overshoot day of a country gives us the day when we exceed the limit of the planet if all humanity consumes like the people in this country.

Sustainability basically means to effectively use the resources we have and to keep these resources available for future use.

Country	Overshoot Day
 Greece	May 22, 2021
 Bulgaria	June 10, 2021
 Turkey	June 16, 2021
 Ukraine	August 8, 2021
 Georgia	September 25, 2021

 Overshoot days for five countries for 2021



Increased environmental movements especially after the 1970s with the realization of the fact that the resources are not infinite led the sustainability concept to emerge. At the 1992 Earth Summit in Rio, the sustainability concept has become one of the main agendas of the international society. Sustainability basically means to effectively use the resources we have and to keep these resources available for future use. Everything we need for survival and well-being is directly or indirectly linked with our natural environment. Therefore, the fundamental principle of sustainability is to use the natural resources without damaging nature and exceeding the self-renewal capacity of Earth and to ensure that future generations can use the same resources healthily while we meet our needs. This is why humans need to act responsibly while using natural resources, watch over the effects of their behaviours on nature and sustainably use the resources to leave them for future generations.



 Fossil fuels such as coal, oil and natural gas have destructive effects on the planet.

Sustainable Practices

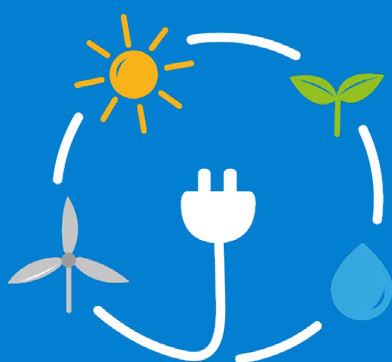
Sustainability is possible with large-scale and effective implementation. For these implementations, each actor from governments to companies and individuals has numerous tasks. The basis of sustainability is to take steps by considering the economic, social and environmental impacts of the decisions and actions.

The sustainability of energy is one of the main issues at the centre of sustainability discussions. Especially over the last 150 years, there is an incredible increase in fossil fuel consumption such as coal, oil and natural gas. These cause environ-

Sustainability
is possible with
large-scale and
effective
implementation.

Did you know?

Approximately 30% of the global electricity production is from renewable energy sources such as the sun, wind, geothermal and bioenergy. Coal and natural gas still form the majority of electricity generation with 60%.



mental problems and create discussion on the sustainability of energy resources. Because fundamentally, fossil fuels represent non-renewable natural resources and they are being depleted. The amount of usable fossil fuel is limited to the reserve we have. And it is a reality that it will be depleted one day. Moreover, the carbon emissions caused by fossil fuel consumption and the climate emergency that we face necessitate to immediately give up on these dirty energy sources. The solution is to prevent energy waste and to turn to resources that are defined as infinite and enable life on our planet for millions of years. These resources called renewable energy or alternative energy are represented with sun, wind and water power. Today, approximately 80% of global energy production is supplied from fossil fuels. Each individual's effort is required to ensure sustainability in energy by reconsidering our energy use (electricity, heat) and turning to renewable energy sources.



Water is among the resources that we need to use sustainably. Our water resources are very limited. Although 3/4 of our planet is covered with water, the usable freshwater is only 1%. Even today, millions of people around the world cannot access clean drinking water and many regions are struggling with long-term drought. Yet, limited water resources are used in an unsustainable way from the drip of a simple tap to wild agricultural irrigation. But it is possible to solve these problems with simple changes and to use water sustainably. For example, various methods such as changing the taps and toilets with systems that consume less water, taking short showers instead of bathing in the bathtub, using greywa-



The basis of sustainability is to take steps by considering the economic, social and environmental impacts of the decisions and actions.





ter in irrigation, cultivating plants that resist drought and do not require too much water as agricultural products, using drip irrigation rather than wild irrigation enables the sustainable use of our water.

In addition to the sustainability of energy and water, sustainability criteria must be emphasised in almost every human activity from a constructed building to a manufactured water bottle. For example, a lot of steel, concrete, wood or similar materials are used for the construction of a new bridge or road. Similarly, these waste materials are formed when old buildings are demolished. Recycling of these waste materials and constructing the new structures from these recycled materials enable these operations to be more sus-



tainable. Similarly, instead of single-use plastic products, using metal, wood or glass products with a longer life cycle and multiple-use enables sustainable use and minimises environmental damage. It is possible to make sustainable designs for new constructions by considering the choice of location, design, heating and cooling. Also, considering the sustainability of the goods from the materials of our clothes to the raw materials resources of the furniture we use plays an important role to leave the limited resources to future generations.



Each individual's effort
is required to ensure
sustainability in energy
by reconsidering our
energy use and turning to
renewable energy sources.

Circular Economy

When we consider the limited resources and increasing consumption, it is a necessity rather than a choice to create a sustainable life. The current functioning of the global economy is far from meeting the sustainable living goal. We need to move from a linear economy which is the system built on fossil fuel use and current consumption habits to a circular economy.

Did you know?

Scientists estimate that by the end of 2020, the weight of human-made objects will be more than the total weight of all living beings on Earth. In other words, human-made objects such as plastic, brick and concrete on the planet will weigh heavier than all plants and animals on the planet for the first time.

For every person in the world, more than their body weight in stuff is being produced each week. In the current situation, the total weight of all human-made objects has reached approximately 1 teraton, which is 1 trillion tons.





The linear economy represents an economy where the raw materials used in the product production and all products are turned into waste after their life cycle is completed. This flow has been shaped by take-make-dispose habits that resulted in today's world. In this system, neither the producer nor the consumer cares about what will happen to the product when the product life cycle ends and they think that the necessary raw material which is the natural source for production is unlimited. On the contrary, the circular economy predicts multiple and sustainable uses of the products. This system can be applied in every field from foodstuffs to accommodation needs. It argues making glass from waste glass, repairing broken elec-

When we consider the limited resources and increasing consumption, it is a necessity rather than a choice to create a sustainable life.



tronic devices rather than buying a new one and repairing furniture instead of cutting more trees to make new ones. Thus, more raw material used for producing the new products and energy consumed for the production is prevented and also environmental damage is reduced.

The circular economy is a system which is possible with the active interaction of both producer and consumer. The consumer needs to deliver the old product to the producer when s/he buys a new one. For that, the producer must produce a new product by recycling the old one. The circular economy with successful local and regional practices will undoubtedly increase the effectiveness to create a sustainable life in the following years.

Ecological Footprint

The ecological footprint is a method that measures the number of natural resources for individuals to sustain their lives and the impacts of consumption of these resources on nature. It makes possible the measurement of the impact of the consequences on the planet, such as the number of natural resources people use during production and the waste and carbon emissions. With ecological footprint measurement, realistic data for sustainable use and management can be obtained.



Zero Waste

A life shaped with sustainability principles and a circular economic system aims for minimum waste and zero waste for every individual. In this sense, the zero waste approach encourages avoiding unnecessary consumption, consuming less, reusing or using for different purposes and recycling.

Especially in recent years, the zero waste approach is tried to be applied at a large scale from government institutions, the private sector, local administrations to individuals. The responsibilities of numerous stakeholders in this process might differ.

The zero waste approach encourages avoiding unnecessary consumption, consuming less, reusing or using for different purposes and recycling.

Did you know?

Every year, 2 billion tons of waste on average is generated around the world. This corresponds to 0.7 kg of waste per person per day. But not all individuals generate the same amount of waste. For example, high-income countries corresponding to 16% of the world population are responsible for 34% of total waste.

At the government and local administration level, these responsibilities include working to generate less waste collectively and increasing the recycling rate by separating waste. To do that, methods such as taxation of wastes, pricing of the use of plastic bag use, placing suitable storage containers for different wastes in public areas can be followed. In addition to these, awareness and training practices play an important role to expand the zero waste approach. Related public institutions, local administrations and NGOs take a role in the planning and implementation of these efforts.



In the private sector, a zero waste approach can be an opportunity to minimise costs. If the amount of waste during manufacturing is low, this is defined as an operation of an efficient production system. Because each waste means money lost in business. Choosing recycled materials as raw materials, production systems aimed at minimizing waste during production stages and more effective product designs are some of the important steps in this sense.

Lastly, individual efforts are necessary. Zero waste both aims to reduce individual wastes and to minimise the costs in eco-

Zero waste both aims to reduce individual wastes and to minimise the costs in economic terms.





conomic terms. It is a beneficial approach from all perspectives. Of course, decision-making and planning are necessary to reach this goal. Changing consumption habits in daily life, not buying the products we do not need, avoiding unnecessary expenses, consuming less, choosing reusable products, reusing the resources we have or using them for different purposes are the main principles to help you to reach your zero waste goal.





Activities



Ecological Footprint



Objective

To realise the impacts of daily life choices on the planet.



Learning Outcomes

- ✎ S/he will realise the impacts of daily life choices on the planet.
- ✎ S/he will perceive that natural resources are limited.



Target Audience

14+ years old



Materials

Ecological Footprint Test, pencil, whiteboard, board marker



Duration

40 min.



Method

Question-answer, mind map, test

Application

1. Ask the participants what they know about “World Overshoot Day”. Then, you can make the explanation below.

We are rapidly consuming the natural resources of the planet as if they are infinite in such a way that we exceed the limit of our planet. To better reveal this situation, World Overshoot Day is calculated every year. It is calculated as the day when the natural resources annually used up by humans exceed the capacity that the planet can regenerate in a year. Accordingly, the day that we exceeded the world's limit in 2020 was August 22. After August 22, we start borrowing from the next year. And every year, this date continues to arrive earlier. How long can we go on like this? Isn't it time to make significant changes in our lifestyles?



2. Then, write sustainability in the middle of the board and ask participants what they know about this word. Write the words from the participants by making arrows from this title and start creating a mind map. You can use the following questions when you are creating the mind map.
 - Do the resources on our planet have a limit?
 - Does every resource we use come at a cost to nature? What?
 - Do you think we may be consuming more than we need? What might we be consuming much?
 - What could be the effects of a large population?
 - Do we generate waste? Do these wastes have an impact on the planet?
 - Which activities might be rapidly consuming the resources of the planet?
 - Which activities are more environmentally friendly?
3. After creating the mind map, make the following explanation about sustainability.

Sustainability basically means to effectively use the resources we have and to keep these resources

available for future use. Everything we need for survival and well-being is directly or indirectly linked with our natural environment. Therefore, while we meet our needs, we must take care to sustain our lives without harming the natural environment, without exceeding the self-renewal capacity of Earth and by ensuring that future generations can use the same resources healthily.

4. Then, tell them each behaviour has an impact on nature and inform them about the Ecological Footprint.

The ecological footprint is a meth-

od to measure biologically productive areas we use to meet our needs and survive and the impact we have on nature while doing that. Each of our choices has a positive or negative impact on nature.

5. Then, give participants sufficient time to apply the Ecological Footprint Test.
6. At the end of the test, get comments from everyone about their results. Discuss who has fewer footprints, who has more footprints and the reasons. Discuss which behaviour changes in daily life will decrease the ecological footprint.

Assessment Questions

You can ask the following questions to the children during or at the end of the activity.

- ▶ What are the behaviours that increase/decrease our ecological footprint?
- ▶ Which behaviour will you work on to change based on what you have learned today?

Extensions

You can calculate the Ecological Footprint in detail at **www.footprintcalculator.org**



ECOLOGICAL FOOTPRINT TEST

FOOD

- Which best defines your diet?
 - I eat meat in every meal (20)
 - I eat meat in some meals (10)
 - I rarely eat meat (5)
 - I don't eat meat (0)
- How often do you eat outside (restaurant/cafe/online food order)?
 - Every day (20)
 - Few times a week (10)
 - Once a month (5)
 - None (0)
- How much of your food do you waste?
 - More than half (20)
 - A quarter (10)
 - One tenth (5)
 - None (0)
- How much of the food that you eat is locally grown?
 - I don't know and I don't care (20)
 - Some (10)
 - Most (5)
 - All (0)
- How much of the food that you eat is packed?
 - All (20)
 - Half (10)
 - A quarter (5)
 - None (0)

Total Points:

HOUSE

- What kind of house do you live in?
 - 2-3 storey detached house (20)
 - 1 storey detached house (10)
 - Apartment / Flat (5)
- How many rooms per person do you have?
 - 4 or more (30)
 - 3 (20)
 - 2 (10)
 - 1 (5)

Total Points:

WATER

- How long do you take shower per day?
 - More than 15 minutes (30)
 - 11-15 minutes (20)
 - 6-10 minutes (10)
 - 1-5 minutes (5)
- Do you turn off the tap while brushing your teeth?
 - No (10)
 - Yes (0)
- How do you wash the dishes?
 - By hand, under running water (10)
 - In the dishwasher (5)
- How often do you use the dishwasher per week?
 - More than 7 times (20)
 - 4-7 times (10)
 - 1-4 times (5)
 - None (0)
- How often do you use the washing machine per week?
 - More than 4 times (20)
 - 3-4 times (10)
 - 1-2 times (5)
 - None (0)

Total Points:

TRANSPORTATION

- How do you travel most?
 - By car (20)
 - By motorcycle (10)
 - With public transport (5)
 - None - I walk or ride a bicycle (0)
- How many hours do you spend in your car or motorcycle?
 - More than 1 hour (20)
 - Half - 1 hour (10)
 - Less than half an hour (5)
 - Never (0)
- How many hours do you spend on public transport?
 - More than 1 hour (20)
 - Half - 1 hour (10)
 - Less than half an hour (5)
 - Never (0)
- How many times do you fly each year?
 - 4 or more times (20)
 - 2-3 times (10)
 - 1-2 times (5)
 - None (0)

Total Points:



STUFF
1. How many electronic devices do you have in your house? a. 10 or more (20) b. 5-10 (10) c. 1-5 (5) d. 0 (0)
2. How many clothes do you buy in a year? a. More than 8 pieces (30) b. 5-7 pieces (20) c. 2-4 pieces (10) d. 1 piece (5)
3. How much trash do you generate in a day? a. More than 1L jar (20) b. 1L jar (10) c. 0.5L jar (5) d. None (0)
4. Do you throw products such as glass, metal and paper into recycling bins? a. No (20) b. Yes (5)
Total Points:
ENERGY
1. Do you use energy-saving light bulbs at home? a. No (10) b. Yes (5)
2. Where do you dry your clothes? a. In dryer (10) b. On a hanger outside or at home (0)
3. Do you use energy-efficient products at home (A+ refrigerator, washing machine, etc.)? a. No (10) b. Yes (5)
4. Do you turn off lights and electronic devices when not in use? a. No (10) b. Yes (0)
5. Which temperature range do you keep in your house in winter? a. Above 21°C (hot) (20) b. 18-21°C (warm) (10) c. 14-17°C (cool) (5) d. Below 14°C (cold) (0)
Total Points:
Grand Total Points:

Sum the scores from all categories. Learn your ecological footprint according to the result.

Less than 70 points 🌍

Great! Your ecological footprint is low. If everyone in the world lived like you, the Earth would continue to exist sustainably. Share your environmentally friendly choices in your daily life and inspire people.

70-120 Points 🌍🌍

You are trying to be careful about your lifestyle. But your lifestyle still has an impact on the planet. If everyone in the world lived like you, we would need one more Earth. You can search for what you can do to lessen your impacts on nature.

121-200 Points 🌍🌍🌍

Watch out! You have a lifestyle that causes consumption of most of the planet's resources. If everyone in the world lived like you, we would need three Earths. Let's take a step before it is too late for our planet and start reducing your ecological footprint.

More than 200 points 🌍🌍🌍🌍

Oops! Your ecological footprint is huge! If everyone in the world lived like you, we would need four Earths. Start taking steps for the planet before it is too late!



Zero Waste



Objective

To realise the connection between consumption habits and waste generation.



Duration

30 min.



Method

Question-answer



Learning Outcomes

- ✎ S/he will perceive the zero waste principles.
- ✎ S/he will think about ways to produce less waste in daily life.
- ✎ S/he will realise the importance of recycling.



Materials

Zero Waste Worksheet, pencil



Target Audience

14+ years old

Application

1. Start the activity by asking the following questions to the participants.
 - Did you have any garbage/waste today? What was it?
 - How much trash did you have?
 - Where did you throw this waste?
 - What kind of waste do you throw away most?
 - Why do you think we generate so much waste?
 - Is it possible to live without waste?
2. Then, tell them that our consumption habits are the reason for a huge amount of waste. Then, ask what happens to this waste and



where they go. Later, you can make the explanation below.

We don't know exactly where our garbage goes or we usually do not care about it. First, we collect our wastes in the garbage bin at home and then, we throw them into the garbage container in our neighbourhood. The garbage truck takes this garbage and brings it to the transfer center. Here, the garbage can go to three different locations. The first and most common method is to bury the waste in the landfill and leave it to decompose. The biological decomposition of the garbage

here can take centuries. Also, leachate formed during decomposition poisons the soil and water and the methane gas leads to global warming. Second, the garbage is incinerated in large ovens. During incineration, energy can be generated but the resulting gases contribute to global warming. The third and less common method is to take the waste to the recycling center and provide sources to produce new products.

3. Then, tell them that it is possible to reduce our waste and ask them what they know about the zero waste concept.





The zero waste concept is based not only on not generating waste but also on reconsidering our consumption habits and not consuming as long as we don't need it. It encourages us to behave by questioning that the resources of the planet are not infinite and that all our consumption has a cost to nature. Let's take a closer look at the zero waste principles.

4. Give them Zero Waste Worksheet and ask them to read the steps here in detail. Tell them that the Zero Waste concept has certain

steps and ask them to rank these steps for importance. Then, make the following explanation.

Answer Key: 1. Refuse, 2. Reduce, 3. Reuse, 4. Recycle

You can think of the rank of the steps as the steps not to create waste. Refuse, reduce and reuse steps are the steps that go to the roots of our consumption habits. Because the more we pay attention to the steps above, the less waste we generate in the lower steps. Recycling is the last step. Because our main goal must

be not generating waste. But if we have waste, we need to dispose of it in the best possible way for our planet. A product that has become waste can be recycled and turned into a new product. Therefore, it is important to buy recyclable products and recycle them to protect the resources. For example, we can prevent 17 trees from being cut down by recycling one ton of paper. Or

we can protect nature by recycling plastics that degrade in nature in almost 1000 years, pollute water and soil, and cause great harm to aquatic animals.

5. Ask the participants which steps they follow more frequently and which steps they follow less frequently in their daily lives. Discuss which other behaviours can help reduce waste.

Assessment Questions

You can ask the following questions to the children during or at the end of the activity.

- ▶ What kind of problems may overconsumption cause?
- ▶ Do you think you buy something because you want it or because you need it?
- ▶ Which zero waste steps will you start applying first?

Extensions

- ▶ You can ask the participants to prepare an attractive poster that explains the zero waste steps to draw attention to zero waste.
- ▶ You can show the images of the giant waste mass in the Pacific Ocean which is called the 7th continent or watch a video on the subject.
- ▶ You can reuse the waste materials by making cloth bags from unused t-shirts, paper bags from waste paper or bird feeder from waste milk boxes.

ZERO WASTE STEPS WORKSHEET

Number the mixed zero waste steps based on their importance and put them in the correct order.

REDUCE	<p>Before buying a product, you can ask yourself whether you really need it. In this way, you will buy less and generate less waste.</p> <ul style="list-style-type: none"> • Change your buying habits. Ask yourself whether the product you want to buy is a need or a want. • Use your notebooks and pens/pencils until they are finished. • Instead of packed food, carry your food in steel or glass containers.
REFUSE	<p>This is the most important step in zero waste. You can refuse to buy products that will cause waste.</p> <ul style="list-style-type: none"> • Say no to the single-use bags, plastic bottles, straws, cups, promotion products and flyers even if they are free. • Take your cloth bag to the market. Refuse plastic bags.
RECYCLE	<p>This step must be your final resort. If you have waste, you can correctly separate your waste and help them to be recycled.</p> <ul style="list-style-type: none"> • Throw waste such as paper, plastic, metal, glass, batteries into recycling bins. • Throw electronic waste into e-waste bins instead of garbage bins.
REUSE	<p>Instead of buying a new product, you can reuse the product you have or repair it if it is broken.</p> <ul style="list-style-type: none"> • Choose reusable items instead of disposable items. Carry your water with you in a glass or steel bottle. • Reuse the jars. You can use them in a variety of ways such as food storage, pen holder, vase. • Do not throw away the products you do not use. Give them to someone who needs them and help to reuse the products.

Notes

References

BBC News Türkçe. (2020, December 10). Antroposen Çağı: İnsan yapımı nesnelerin ağırlığı dünyadaki tüm canlıların ağırlığını aştı.

<https://www.bbc.com/turkce/haberler-dunya-55252792>

C2ES. (2020, April 27). Renewable Energy. Center for Climate and Energy Solutions.

<https://www.c2es.org/content/renewable-energy/>

Country Overshoot Days 2020. (2020, December 11). Earth Overshoot Day.

<https://www.overshootday.org/newsroom/country-overshoot-days/>

Ekolojik Ayak İzi. (2019). In Lise TEMA Eğitim Programı Öğretmen Rehberi (pp. 59–64). TEMA Vakfı.

Fisher, M. R. (n.d.). 1.3 Environment & Sustainability – Environmental Biology. Pressbooks.

<https://openoregon.pressbooks.pub/envirobiology/chapter/1-3-environment-sustainability/>

How many planets does it take to sustain your lifestyle? (n.d.). Footprint Calculator.

<https://www.footprintcalculator.org/>

Liu, S. (2017). Chapter 14 - Sustainability: Humanity Perspective. In Bioprocess Engineering (2nd ed., pp. 829–870).

<https://doi.org/10.1016/B978-0-444-63783-3.00014-9>

Material Economics. (2018). The Circular Economy: A Powerful Force for Climate Mitigation.

<https://europeanclimate.org/wp-content/uploads/2019/12/25-09-19-the-circular-economy-a-powerful-force-for-climate-mitigation-full-report.pdf>

Meadowcroft, J. (n.d.). Sustainability | Description, Theories, & Practices. Encyclopedia Britannica.

<https://www.britannica.com/science/sustainability>

Renewables – Global Energy Review 2020 – Analysis. (n.d.). IEA.

<https://www.iea.org/reports/global-energy-review-2020/renewables>

T.C. Çevre ve Şehircilik Bakanlığı. (n.d.). Sıfır Atık. Sıfır Atık.

<https://sifiratik.gov.tr/#>

Trends in Solid Waste Management. (n.d.). World Bank.

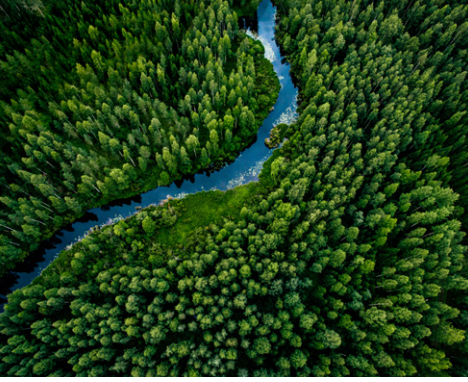
https://datatopics.worldbank.org/what-a-waste/trends_in_solid_waste_management.html#:~:text=The%20world%20generates%202.01%20billion,from%200.11%20to%204.54%20kilograms.

WWF Footprint Calculator. (n.d.). WWF Footprint Calculator.

<https://footprint.wwf.org.uk/#/>

Zero Waste. (2020, November 25). Zero Waste Europe.

<https://zerowasteurope.eu/>



The Editor of the Material
District Government of Enez
Address: Gaziömerbey Mahallesi, Cumhuriyet Meydanı
Hükümet Konağı 22700 Enez / Edirne
Phone: +90 284 811 60 06
E-Mail: enezkaymakamligi@gmail.com
Website: www.enez.gov.tr

The Title of the Programme

Joint Operational Programme Black Sea Basin 2014-2020

The Editor of the Material

District Government of Enez

Joint Operational Programme Black Sea Basin 2014-2020 is co-financed by the European Union through the European Neighbourhood Instrument and by the participating countries: Armenia, Bulgaria, Georgia, Greece, Republic of Moldova, Romania, Turkey and Ukraine.

This publication was produced with the financial support of the European Union. Its contents are the sole responsibility of Enez District Governorship and do not necessarily reflect the views of the European Union.