

ECO-FRIENDLY SPORT PROGRAM FOR YOUTH



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ECO-FRIENDLY SPORT PROGRAM FOR YOUTH

GO
green

live
with less
waste

nature

bio

zero
waste

NO
PLASTIC
BAGS

GO
GREEN

SAVE
TREES

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Eco

FRIENDLY



This book is prepared under 'Erasmus+ Sport with project ID 613590-EPP-I-2019-I-SK-SPO-CP "Eco-Friendly Sports"

Authors: Lenka Curillova, Denisa Karabova, Jana Turanska, Pelin Ögünç, Lucia Svata, Tugba Can, Barnabás Vágány, Bence Garamvölgyi, Erika Juhász, Damiana Sudano, Manuel Carabias Herrero, Saúl Manzano Rodríguez, Yoanna Dochevska, Kalinka Gudarovska, Ivaylo Zdravkov, Georgiana Marcu, Daniel Enachescu, Antonio Gomes, Carolina Silva

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For any comments on this publication, please contact: info@adelslovakia.org



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The most basic reason to eco-friendly sports is to help achieve sustainability. Sustainability is based on a simple principle: Everything that we need for our survival and well-being depends, either directly or indirectly, on our natural environment. Sustainability creates and maintains the conditions under which humans and nature can exist in productive harmony, that permit fulfilling the social, economic and other requirements of present and future generations.

We strongly believe that it is a duty of all of us to take action in order to protect the environment and stop global warming. We should not only reduce, reuse or recycle, but each of us can actively contribute to the protection of our planet.

One of our mottos, which also appears on some of our project T-shirts is:

“Small acts, when multiplied by millions of people, can transform the world and save the planet!” Young people are showing strong voice in the climate movement, and educating young people about environment and nature through sport can contribute to their active environmental citizenship as well as healthier lifestyle in the future.

Those are the main reasons why we started the “Eco-Friendly Sports” project, with the aim to promote sport and physical activities that not only contribute to better health but also have a positive impact on the environment.

The most important outcomes of our project are newly developed methods and events involving environmental education through sport. Eco-Friendly Sport Program for Youth consists of 24 workshops and events - physical activities combined with non-formal education methods divided into 3 parts: Sport and Physical Activities while learning about nature, ecosystems and biodiversity around us and how to help to its conservation.

The second part contains of Sport and physical activities while learning about global environmental problems and its solutions. And third part is focused

on the activities related to sport, environmental activism and individual actions.

We would like to emphasize, that all those activities have been also tested and implemented in 8 countries during 48 events and have involved hundreds of people. After the initial idea and design of the methods, test events were held.

Afterwards the publication was finalised and the activities were adapted (where necessary) to better fit the programme’s objective. Some pictures from each activity are also available after each description for better understanding and idea of what the activities looks like in practice. Additional photos and videos of the events are also available on our website and social media (@ecofriendlysports).

The publication is intended for trainers, sport experts, youth workers, educators, facilitators, and youth leaders who would like to promote environmental education through sport and organize Eco-Friendly Sport events and activities in their communities, schools, clubs, etc.

Eco-Friendly Sport Program consists of variety of activities of diverse length and learning outcomes. However, the activities can be used independently. The facilitator can select only a certain activity or event as there is no direct link or continuity between them. All of them can be used with young people of various ages/also with adults and depending on the needs and the profiles of the participants and can be also adapted.

Objectives of the project are:

- 1 to promote and develop new methods of environmental education through sport,
- 2 to increase the number of organized eco-friendly sport events,
- 3 to generate public awareness about possible connection of sport and protection of environment,
- 4 to foster citizens' engagement in sport, but also encourage to them to take action towards better environment,
- 5 to increase the number of organized eco-friendly sport events,





**SPORT &
PHYSICAL
ACTIVITIES**

**WHILE
LEARNING
ABOUT NATURE
AND HOW TO
HELP TO ITS
CONSERVATION**





An ecosystem is a dynamic community comprising populations of plants, animals, microorganisms and the non-living environment interacting together as a functional unit. Environmental factors, such as soil type, position in the landscape, climate and water availability, determine the presence and distribution of ecosystems. The main inputs to ecosystems are sunlight, soil, nutrients and water, while wastes from one part of the system form fuel for other parts. A key output is biomass regenerating itself.

An ecosystem functions by continually cycling energy and materials through living organisms that grow, reproduce and then die. This cycling of energy and materials through living organisms has evolved in over millions of years. Recent changes in the frequency and intensity of these disturbances and stresses raises important issues about the ability of species and ecosystems to survive and adapt.

Forests

Forests are essential for life on earth. Three hundred million people worldwide live in forests and 1.6 billion depend on them for their livelihoods.

Forests:

- ▷ provide habitat for a vast array of plants and animals, many of which are still undiscovered.
- ▷ protect our watersheds.
- ▷ supply the oxygen we need to survive.
- ▷ provide the timber for products we use daily.
- ▷ inspire wonder and provide places for recreation.
- ▷ are home to 80% of the world's terrestrial biodiversity.



These ecosystems are complex webs of organisms that include plants, animals, fungi and bacteria. Forests take many forms, depending on their latitude, local soil, rainfall and prevailing temperatures. Coniferous forests are dominated by cone-bearing trees, like pines and firs. They can thrive in northern latitudes and are often found there. Many temperate forests house both coniferous and broad-leafed trees, such as oaks and elms, which can turn to beautiful shades of orange, yellow and red in the fall.

After oceans, forests are the world's largest storehouses of carbon. Forests provide ecosystem services that are critical to human welfare, they are so much more than a collection of trees.



Identifying Trees

Practical activities done in the forest create a good mood, relaxes and stimulates you. Looking at a tree's leaves and seeds is a great way to help identify different species that you might find around you. Also, all sorts of cool things could be done with seeds! Play conkers with horse chestnuts, turn sycamore seeds into helicopters when you throw them into the air and make pine cones into homemade bird feeders or even a model hedgehog with the help of some stick-on googly eyes.



Duration

2-4 hours

Aim / Learning outcomes:

- ▷ To get to know basic tree species and learn how to identify trees;
- ▷ To observe and appreciate forest as a type of ecosystem;
- ▷ To learn to be more attentive towards the forest.



Materials needed

- ▷ A bag to collect the interesting seeds and leaves they find
- ▷ Identification sheet (link in "Resources used" section or below the workshop manual or Annex I.)
- ▷ A tree guide (if you want to go into more detail)
- ▷ Camera or smartphone

Recommendations for facilitators

- ▷ Walking in the forest and hiking are the activities recommended to start in the morning rather than in the afternoon.
- ▷ Check the weather well in advance and in case of rain reschedule for the earliest convenient sunny day.
- ▷ Plan the route in advance using maps, choose easy destination and spots for identifying trees.
- ▷ Inform participants in advance about possibilities to use toilets, water

fountains and refreshments (if any) on the way.

- ▷ Ask participants to bring with them drink, snacks or light lunch.
- ▷ Apply the Leave no Trace policy with your group, which means that everyone should leave the spot where activity took place how they found it.
- ▷ There are lots of things to see outside in the natural setting, as long as you are quiet. Have a signal that lets the group know they need to be quiet to observe wildlife.

Description of the session:

Theoretical preparation: (30´)

Inform the participants about the activity, give the basic information about the forest. Especially warn them about the idea of “no trace left behind” (<https://Int.org/why/7-principles/>).

Give them the printed materials to identify the most well-known trees and explain them, that there are estimated to be more than 20,000 kinds of trees in the world.

Ask them to study material for 10 minutes before you go for the hike, so they can observe and try to spot trees while walking.

Walking or Biking in the nature (1,5 - 3 hours)

Give the participants following instructions:

1. Look at the leaves or needles. Is it a broadleaf (usually deciduous) or is it a conifer (usually with needles or scales)?
2. Different features will be visible through the seasons. In winter, for broadleaf trees, you'll have to use twigs, leaf buds and bark.
3. Take notice of the surrounding area such as hedgerows, fields, parks, woodland or close proximity of the water. Some species are more likely to grow near water, in scrubland, parkland or in woodland.
4. Piece the clues together, including the overall shape and size of the tree, bark,

leaves or needles, flowers, fruits, leaf buds and twigs. The more features you can see, the more accurate your identification will be.

Teamwork – Identify trees (45´)

Divide the participants in small groups and ask them to discuss the trees pictured on the printed materials. Ask the groups to return back to the circle after 20 minutes and let each group show to others what they have identified trees. Discuss the importance of forests and deforestation

(We need to safeguard our forests, WWF, Retrieved from: https://wwf.panda.org/discover/our_focus/forests_practice/importance_forests/

and Deforestation and forest degradation, Issues Brief, IUCN, 2021, Retrieved from: <https://www.iucn.org/resources/issues-briefs/deforestation-and-forest-degradation>)

Finally invite the participants to tree planting activities.

Final reflection and feedback (20-30´)

Debriefing will be based on following questions:

How did you feel in nature?

How would you describe your activity?

Was this activity useful?

How was the cooperation within the group?

How can you connect this activity with real life situations?

Resources used:

Download the identification sheet:

Tree Health Survey Tree, PDF,
Retrieved from:

<https://www.imperial.ac.uk/media/imperial-college/research-centres-and-groups/opal/Tree-Health-Survey-Tree-ID-guide-WEB.pdf>

Other resources:

Tree Identification, Retrieved from:

https://www.treetoolsforschools.org.uk/activitymenu/?cat=tree_id

Identifying Trees, PDF, Retrieved from:

https://dof.virginia.gov/infopubs/forest-facts/FF-Identifying-Trees_pub.pdf

There's more to wildlife than fur and feathers. Here's your chance to 'branch' out, Retrieved from:

<https://www.rspb.org.uk/fun-and-learning/for-families/family-wild->

[challenge/activities/trees-leaves-and-seeds/](#)

Read the book:

David George Haskell: The Forest Unseen: A Year's Watch in Nature

Watch the video:

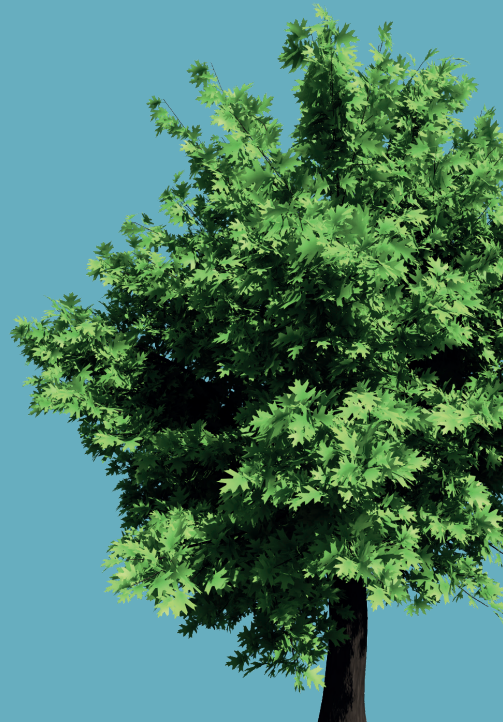
How to Identify a Tree By Leaf, Bark and Fruit | Wood and Lumber Identification for Woodworking,
Retrieved from:

https://youtu.be/nO67Jd_6KEw

Use the app to identify trees, Available on: <https://www.inaturalist.org>

<http://leafsnap.com>

<https://www.uwsp.edu/cnr-ap/leaf/SiteAssets/Pages/7-8-Wisconsin-Forestry-Lesson-Guide/7-8FEI.pdf>





Rivers

The origin and development of human civilization are closely related to rivers. Over 90 percent of the human settlements in Bulgaria are located in the vicinity of a river. This may be why the word “river” evokes positive emotions and associations of things pure, clean, and calm. At the same time, being so close to human activities, rivers are subject to various and quite often negative impacts.



For most people, a river means water flowing from the mountains to the sea. However, flowing water is only essential component of the living body called “river”.

This is one of the best known and most commented negative impacts of human activity on water. Until recently it was considered the most significant problem of river health. As a consequence of wide discussion and measures taken, there is a decrease in pollution of rivers worldwide. We rely on rivers and other fresh water

ecosystems for drinking, food, and sanitation, and they're in trouble.

Fortunately, you can do your part to save the rivers by reducing your water usage, using river-friendly products, getting involved, and urging others to make changes. No matter how small these actions may seem, they do help to reduce pressure on the rivers and create a brighter future.



Paddle Surf - The importance of wasting water

Nowadays, on a daily basis, we use 10 billion tons of freshwater worldwide, even though not all countries have the same access to it. It should be noted that reducing our water usage reduces the energy required to process and deliver it to homes, businesses and communities, which, in turn, helps to reduce pollution, conserve fuel resources and minimize the effects of drought and water shortages.

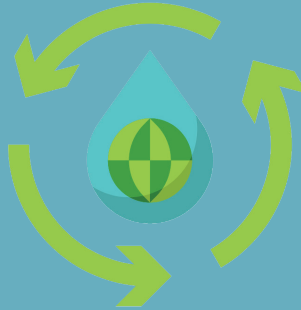


Duration

1 hours

Aim / Learning outcomes:

- ▷ To understand the value of water and how easy it is to waste it;
- ▷ To raise awareness about the problems of clean water, water sanitation, and water as a scarce resource;
- ▷ To realize how to come up with strategies to accomplish the task through teamwork and sports.



Materials needed

- ▷ for option a) paddleboard; water balloon; suitable clothes, sun protection
- ▷ for option b) bottles, reservoir of water, water tank

Recommendations for facilitators

- ▷ Activities should approach the Sustainable Development Goal number 6 - Clean Water and Sanitation and Sustainable Development Goal number 14 – Life Below Water.
- ▷ Activities could be done outdoors or inside, outside they can be more practical and use water, water bottles, reservoirs and even natural water resources such as lakes, etc. For outdoor activities it could be advised to the

participants to bring: sun cream, water bottles, as well as suitable clothes and shoes.

During the activities inside, water taps linked with time control could be used.

- ▷ Carry some dry rations and first-aid for an emergency.

Description of the session:

Introduction and brainstorming (30'):

The facilitator starts the activity by introducing the topic of water waste, asking the participants what the biggest challenges of the usage of water are. It is key to analyze the importance of all natural resources, starting from water.

Nowadays, on a daily basis, we use 10 billion tons of freshwater worldwide, even though not all countries have the same access to it. It should be noted that reducing our water usage reduces the energy required to process and deliver it to homes, businesses and communities, which, in turn, helps to reduce pollution, conserve fuel resources and minimize the effects of drought and water shortages. Showing this data to the participants is important firstly to raise their awareness on the issue, thus stimulating a discussion about the topic, analyzing the data from different countries,

Instructions and Teamwork (30'):

There are two ways how you can organize the activity:

a) on paddle surf: divide the group into 2 teams and have water balloons prepared in advance. Participants have to use a water balloon as a vessel for transporting water from point A to point B. The balloon has to pass all the team members without becoming stagnant. The winning team is only the one that took a water balloon from point A to point B safely, without it falling into the lake, that means they retain the importance of the water. It is key that the lake will be properly cleaned after activity.

b) on the ground with a water bottle: Divide the group into 2 teams and have a broken water bottle, a reservoir for water and a small tank of water prepared in advance. Participants must use a broken water bottle as a vessel for transporting water from point A (full water tank) to point B (empty water tank) and then fill up the water reservoir - at the point C.

Two teams compete against each other and against the clock. The first one to fill up the water reservoir wins. Problem: They can only use 1 bottle, that is broken, and the bottle must pass above the head of every team member, while they are in a line, from point A, which has a water tank full of water, to point B, a much smaller empty water tank.

Each time point B's tank is full, one team member must transport it and run with it to point C, to fill up the water reservoir. The team who fills it up first wins. Then this water shall be used and not wasted.

Final reflection and feedback

This activity is greatly linked to water preservation and brings awareness to the extensive waste of water.

At the end of the session discuss with participants the topic of pollution of rivers and seas. Having in mind all what was discussed, ask the group the following questions during the the reflection/ evaluation:

- What did you learn?
- What was the most frustrating thing?
- How is this linked with the usage of water?



SAVE
WATER

Resources used:

Water, water everywhere... but not a drop to drink, The World Counts, 2022, Retrieved from:

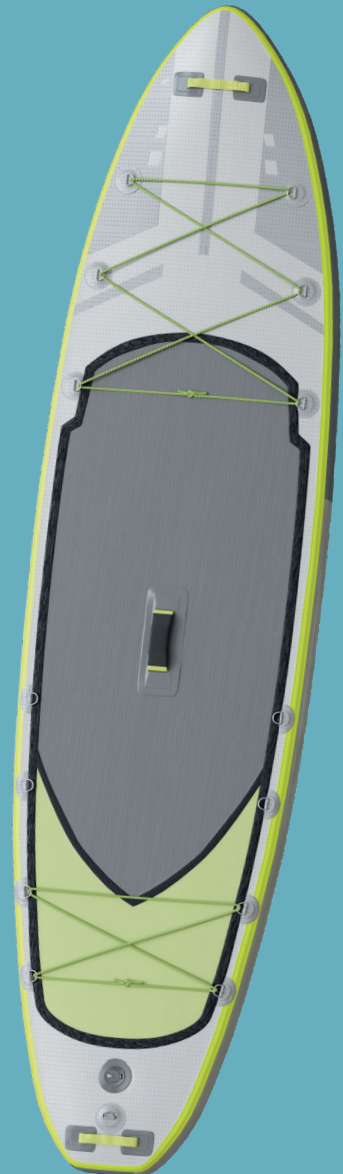
<https://www.theworldcounts.com/stories/average-daily-water-usage>

The water consumption per person, Vision Water, 2021, Retrieved from:

<https://visionwater.eu/know-how/the-water-consumption-per-person/>

9 Ways You Can Help Save the Rivers

- ▷ Learn river ecosystems.
- ▷ Use biodegradable cleaning products,
- ▷ Plant a tree
- ▷ Sweep patios and sidewalks rather than using the hose,
- ▷ Volunteer for a stream clean-up or wetland restoration event,
- ▷ Limit pesticide use,
- ▷ Educate through exposure and have some fun,
- ▷ Fix leaky faucets.





Grasslands

Grasslands are characterized as lands dominated by grasses rather than large shrubs or trees. and they are covered in grasses and grass-like plants which have growing points close to the soil and can keep on growing even after being nibbled on by animals. These grasses can support high densities of grazing animals, such as zebra, antelope and bison. And these herds in turn support iconic predators, including lions and cheetahs.



Grasslands account for 20–40% of the world's land area. They are generally open and fairly flat, and they exist on every continent except Antarctica, which makes them vulnerable to pressure from human populations. There are two main types: tropical and temperate.

Temperate grasslands include Eurasian steppes, North American prairies, and Argentine pampas.

Tropical grasslands include the hot savannas of sub-Saharan Africa and northern Australia.

Grasslands have many names: prairies in North America, Asian steppes, savannas and veldts in Africa, Australian rangelands, and pampas, llanos and cerrados in South America. They are all places where there is too little rain for trees to grow in great numbers.



Camping and Creating a Rock Garden

Rock gardens are a great way to display small plants. A rock can be placed so that sun-loving plants make the most of its sunny face whilst shade-tolerant plants can nestle in its north-facing shadow. It is not difficult to get the conditions right and create an attractive garden style, using rocks or stones to set off these underused plants



Duration

1 day (You can organize the activity also for a half day or more than one day)

Aim / Learning outcomes:

- ▷ To get to know grasslands while camping;
- ▷ To learn how to create a rock garden;
- ▷ To observe and appreciate grasslands as a type of ecosystem and to learn to be more attentive towards the grasslands.



Materials needed

- ▷ A shovel
- ▷ Garden trowel
- ▷ Wheelbarrow
- ▷ Stones in a variety of sizes
- ▷ Soil and plants
- ▷ Camp equipments: Tent, torch, sleeping bag, lockable duffel bag, Therm-a-Rest/air mattress, Swiss Army knife, stove, whistle, lighter, ax for chopping firewood for campfire, ropes, food, etc

Recommendations for facilitators

- ▷ Walking in the forest and hiking are the activities recommended to start in the morning rather than in the afternoon.
- ▷ Check the weather well in advance and in case of rain reschedule for the earliest convenient sunny day.
- ▷ Plan the route in advance using maps, choose easy destination and spots for identifying trees.
- ▷ Inform participants in advance about possibilities to use toilets, water

fountains and refreshments (if any) on the way.

- ▷ Ask participants to bring with them drink, snacks or light lunch.
- ▷ Apply the Leave no Trace policy with your group, which means that everyone should leave the spot where activity took place how they found it.
- ▷ There are lots of things to see outside in the natural setting, as long as you are quiet. Have a signal that lets the group know they need to be quiet to observe wildlife.

Description of the session:

Theoretical preparation: (30')

Inform the participants about the activity- camping as an outdoor activity including also hiking, inform them about camp area, camping rules and grassland ecosystem.

Tell the participants about benefits of spending time in natural environments e.g. health benefits and well-being, but exposure-response relationships are under-researched. Use energizers, icebreakers games to increase group motivation and have fun.

Set up the time for the main activities like walking around, lunch and dinner and the place where they can create the rock garden.

Camping in grassland area: (24 hours)

Camping is a great way to enjoy the fresh air, to socialize, to refresh mind, to relax, to exercise, to overcome challenges and to connect with the wilderness. If you are well organized, you will be more comfortable, and your camping experience will be more likely to be a good one.

Things you can do to keep your camp clean and organized:

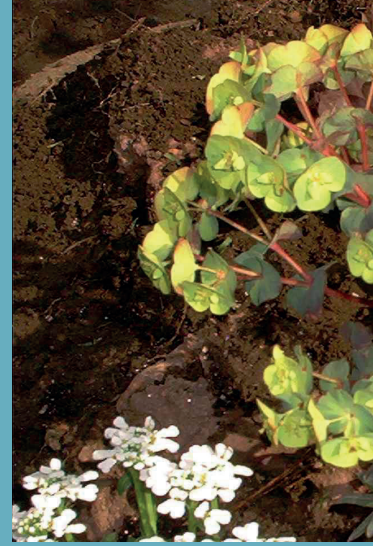
- ▷ Ask permission if you want to camp on private property
- ▷ Camp close to a good water supply if possible.
- ▷ Camp in or near low trees and bushes for shelter.
- ▷ Choose level ground for your cooking and shelter area.

- ▷ Keep food cool by placing it under the shade of a tree.
- ▷ Put up a clothesline in an area that catches the breeze.
- ▷ Let someone know where you are camping.
- ▷ Organise some fun activities like learning how to tie common knots or how to build a campfire.
- ▷ The most important is to ensure that the participants can camp safely.

Creating A Rock Garden (1,5 - 3 hours)

I. First circle

- ▷ Clear the area of grass or other organic material, if necessary.
- ▷ Be sure to dig up sod and other plants below the roots to prevent new shoots from coming up later in your rock garden.
- ▷ Lay out a circle of rocks as the perimeter of your base, making the diameter about 1-2 meter. This forms the foundation of your garden and creates some elevation above the surrounding ground.
- ▷ Use up most of your largest, least attractive rocks in this bottom layer, but it does not require stones larger than about 12 inches in any dimension.
- ▷ Fill the area inside the first course with sandy soil, which provides good drainage.
- ▷ If all you have is clay soil, add sand and compost to it to promote better drainage. Walk on the soil to pack it down.



2. Second circle

- ▷ Plan the second course of stones. This can simply be a smaller version of the first course, forming a circle within a circle, or it can take the form of one or more bands of stone that pass through the center of the bed perimeter.
- ▷ The second course should provide plenty of room for planting between the bed perimeter and the second- course stones as well as in any additional spaces created by the second course.
- ▷ Place the second course of stones according to your plan (and don't

be afraid to experiment). Since you used your heaviest stones for the first course, you have lighter, more easily maneuvered stones to use for the second course.

- ▷ Try to use the best- looking stones here (any size is fine) because they will be more visible than the foundation rocks.

3. Planting plants

- ▷ Choose and arrange the plants in your rock garden while they are still in their pots.



weed growth), use small stones of the same type (or at least similar coloring) as the major stones forming the rock structure.,

Teamwork – Creating The Rock Garden (45´)

Let each group show their garden to other participants and discuss how they created it. Ask the groups to return back to the circle after 20 minutes and let each participant share his/her camp experience.

Final reflection and feedback

Debriefing will be based on following questions:

How did you feel in nature?

How would you describe your overnight camping experience?

Was this activity useful?

How was the cooperation within the group?

How can you connect this activity with real life situations?

- ▷ It is the best to plant in threes: grouping three of the same kind of plant together or in a strategic arrangement.
- ▷ Keep in mind that you will intersperse rocks among the plants.
- ▷ Once you have settled on a layout, begin planting with additional soil as needed, adding rocks for decorative effect as you go (if you add all the rocks before planting, they will just be in the way of your digging.)
- ▷ If you want to cover small areas of soil with rock mulch (to prevent the



Resources used:

Images used in text from:

David Beaulieu: How to Build Rock Gardens for Small Spaces, 2022, Retrieved from:

<https://www.thespruce.com/how-to-build-rock-gardens-2132674>

Royal Botanic Gardens: Explained: The Rock Garden, Retrieved from: https://www.youtube.com/watch?v=E-6Y_zaBVfY

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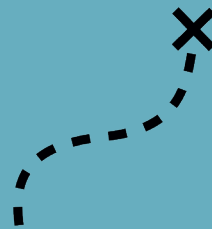
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Best Camping Activities and Games for Adults, Outdoor Crunch, 2022, Retrieved from:

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Manitoba Agriculture, Food and Rural Initiatives : The Outdoors Camping and Survival Skills, Member's Manual, Draft, 2007, PDF, Retrieved from:

<https://www.gov.mb.ca/agriculture/industry-leadership/4h/pubs/olcss.pdf>









Biodiversity—comprising animals, plants and microorganisms, their genetic variation and their organisation into populations that assemble into ecosystems—is fundamental to the provision of ecosystem services.

The diversity of organisms is the direct source of many services, such as food and fibre, and underpins others including clean water and air, through the role of organisms in energy and material cycles.

Changes in and the loss of biodiversity directly influences the capacity of an ecosystem to produce and supply essential services, and can affect the long term ability of ecological, economic and social systems to adapt and respond to global pressures.

Animals and Meat Overconsumption

Food and farming is one of the biggest economic sectors in the world. We are no longer in the 14th century, when as much as 76% of the population worked in agriculture – but farming still employs more than 26% of all workers globally. And that does not include the people who work along the meat supply chain: the slaughterers, packagers, retailers and chefs.



Livestock is the world's largest user of land resources, says the FAO, "with grazing land and cropland dedicated to the production of feed representing almost 80% of all agricultural land. Feed crops are grown in one-third of total cropland, while the total land area occupied by pasture is equivalent to 26% of the ice-free terrestrial surface". According to the UN's Intergovernmental Panel on Climate Change, agriculture, forestry and other land use accounts for 24% of greenhouse gases. Attempts to pick out the role of animal farming within that

have come up with a huge range of numbers, from 6-32%: the difference, according to the Meat Atlas, "depends on the basis of measurement". Should it just be livestock, or should it include a whole lot of other factors? Different models of farming have different levels of emissions: this has generated an energetic discussion around extensive versus intensive farming, and regenerative farming – a model that aims to combine technologies and techniques to regenerate soils and biodiversity levels while also sequestering carbon.



Hike and Vegetarian Barbecue

Food consumption is an important part of a person's overall ecological footprint. By appropriate food selection, we can significantly reduce the impact on climate change.



Duration

2 - 5 hours
(depending on the length of the hike)

Aim / Learning outcomes:

- ▷ To raise awareness about impact of the consumption of the meat to the environment;
- ▷ To learn how to decrease or replace consumption of the meat as well To test examples of the plant based meat alternatives;
- ▷ To promote general physical activity and environmental education.

Materials needed

- ▷ Material for barbecue – vegetarian meal and other material depending on the place when it will take place and the conditions.



Recommendations for facilitators

- ▷ You can ask participants to bring their own food and share with others.
- ▷ Keep a constant eye on the fire.
- ▷ Carry some dry rations and first-aid for an emergency.

Description of the session:

Theoretical input and discussion.

You can start the session with few interesting facts about meat consumption:

Transport produces approximately 13% of the world's emissions and our diet produces an even higher figure, contributing 14.5% to CO2 emissions.

Global production and consumption of meat has quadrupled since 1960.

15,415 liters of water are needed to produce one kg of beef. Animal agriculture is responsible for up to 91% of the destruction of the Amazon forest. One to two acres of rainforest are cleared every second to make space for livestock.

Discussion:

What are the main reasons why we should at least decrease our meat consumption and other animal products?

- impact on the environment;
- cruelty towards animals and lack of space in the farms;
- health. Encourage discussion and exchange of views and opinions of participants.

You can show them also some videos:

The diet that helps fight climate change,
Retrieved from:

<https://www.youtube.com/watch?v=nUnJQWO4YJY>

Hidden Footage Shows Abuse Inside UK Dairy Farms, NowThis, Retrieved from: <https://www.youtube.com/watch?v=RIWfZCiWsNU>

Inside the UK's Chicken Farms, Undercover Investigation, Retrieved from:

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

Hike

During the hike, divide people at the beginning in the couples

-How many times per week do you eat meat?

-Did you consider decreasing meat before?

- Do you know about your ecological footprint? (You can recommend them to check some, for example: <https://www.footprintcalculator.org/>)

-Do you know how to replace meat with plant products and stay full and healthy? (beans, lentils, peas, chickpeas, soy and other soy products - they have a high protein content, are easy to store, are cheap, the body can digest them more easily than meat).

Vegetarian Barbecue or Cooking

Instead of typical meat barbecue, provide a chance for participants to taste various more eco-friendly and non-meat options, for example: seitan, tofu, tempeh, jackfruit or other meat substitutes; vegetables, potatoes, corn, zucchini, eggplant, etc., cheese and many other options. There are many vegetarian recipes available online.

Few more tips how to make barbecue more eco-friendly:

▷ if you think about buying new grill, instead of charcoal grill, choose gas or the best – electric;

▷ if you have to use a conventional charcoal grill, at least refrain from conventional coal and use eco-friendly coal instead. – e.g. Lump coal;

- ▷ if you want to use fire pit, use previously established one if available, to avoid scarring the area with more fire pits;
- ▷ any medium to strong wind can be dangerous due sparks getting away and can ignite a forest fire;
- ▷ tell people to prepare and take only as much food as they eat to avoid food waste;
- ▷ do not use disposable cutlery or plates;
- ▷ buy local ingredients if possible;
- ▷ of course, recycle trash.

Another activities

You can also connect this topic with general protection of animals, for example by organizing visits to animal shelters, helping there, walking with dogs etc. Visiting the farm can be connected with gardening and providing participants with their own experience on what a life on the farm looks like, since in past taking care of the field/garden was the only exercise for many people.

Participants will have a chance to understand what does it mean to grow our own food, not just go to shop buy something and waste it later. (free range farming = less methane)

Final reflection and feedback

Did you learn some interesting information during the event?

Are you surprised by the impact of meat consumption on the planet?

Do you think you will decrease your meat consumption after this event?

Resources used:

Sergio Margulis: Causes of Deforestation of the Brazilian Amazon, World Bank Working Paper No. 22, 2004, Retrieved from:

<https://documents1.worldbank.org/curated/en/758171468768828889/pdf/277150PAPER0wbwp0no1022.pdf>

7 Facts About Meat Consumption And Production That Are Destroying The Planet's Resources, Animal Equality, 2015, Retrieved from:

<https://animalequality.org/news/7-facts-about-meat-consumption-and-production-that-are-destroying-the-planets-resources/>

How to make your BBQ Eco-Friendly, 15 Simple Tips To Make Your BBQ More Eco-Friendly, Environmental Conscience, 2022, Retrieved from:

<https://environmental-conscience.com/how-to-make-your-barbecue-eco-friendly/>





Animals and Illegal wildlife trade

Poachers, traders, and highly-organized criminal syndicates are ruthlessly pursuing profit at any expense to satisfy market demand, and the illegal wildlife trade is wreaking havoc on wildlife species all over the world.

Wildlife resources such as elephant ivory, rhino horn, pangolin scales, tiger bone, bear bile, and rosewood are being trafficked and traded unsustainably, resulting in alarming

declines in some of the world's most charismatic, as well as some lesser-known, wildlife species. We're on the front lines, working to identify, deter, and prosecute illicit



wildlife trafficking at every opportunity.

The Illegal Wildlife Trade (IWT) has grown to unprecedented proportions, owing in part to rising market demand. This criminality is generally acknowledged as a challenge to stability, protection, livelihoods, and biodiversity. The illicit trade in endangered fauna and flora generates a lot of money. IWT occurs all over the world and includes a wide range of animals, both well-known and lesser-known (UNODC, 2016). IWT has elicited a wide range of reactions. It spans national boundaries and jurisdictions, involving various

national players and agencies, numerous intergovernmental organizations (IGO), and national and international nongovernmental organizations (NGO). More targeted action, as well as greater teamwork and collaboration, are often advocated. However, a dislocation between political will and practical engagement at a national level is often apparent. Understanding and utilizing available tools and resources, as well as recognizing the potential for innovation and new methods, is crucial to effectively disrupt and dismantle the criminal networks that profit from IWT.



There is a Plan B to save the animals and to stop the illegal wildlife trade

Persuading customers to make informed decisions when purchasing wildlife-based goods is one of the most important tools for combating illicit and unsustainable wildlife trade.



Duration

2,5 hours

Aim / Learning outcomes:

- ▷ To increase effort of public community to reduce the illegal wildlife trade at local level;
- ▷ To raise awareness about the nature, the wildlife and also about endangered species of animals;
- ▷ To learn participants how to make informed choices when buying wildlife-based products.

Materials needed

- ▷ video projector and laptops
- ▷ flipchart, markers
- ▷ clew/small ball
- ▷ a room if you want to do the session indoor or a silent place if you want to organise the session outside

Recommendations for facilitators

- ▷ Encourage participants to think out of the box and to stimulate them to find a solution to illegal wildlife trade.
- ▷ Encourage participants to express their feelings and emotions.



Description of the session:

Getting to know each other (20')

Starting with short presentation of participants and a short energizer

Theoretical preparation (25')

Discussion about animals, endangered species and illegal wildlife trade.

Regarding laws and regulations on wildlife trafficking, these vary from country to country. This depending on the jurisdiction, violations of laws relating to the environment, forests, wildlife, fisheries, endangered species, or protected areas may give rise to administrative, civil or criminal liability. International organizations, such as UNODC and INTERPOL use the term 'wildlife and forest crime' to 'refer to the taking, trading (supplying, selling or trafficking), importing, exporting, processing, possessing, obtaining and consumption of wild fauna and flora, including timber and other forest products, in contravention of national or international law. Broadly speaking, wildlife and forest crime is the illegal exploitation of the world's wild flora and fauna' (UNODC, 2019).

It would be useful to use a video or more photos in order to create a special framework helping people to understand the context of animals living.

Team work (80')

Divide participants in the 3 equally large groups. Each group will have a topic to discuss: Participants will use eco-friendly ways of transportation for their journey to shops.

▷ Ask before you buy. Group will go to the closest shop and participants need to ask the vendor what is the product sold there: made of, where it's from, and if its country of origin allows its sale (Meat, fish, some clothes they will find, etc.). After the vendor will say the name of the company that produces meat or fish, for example they could search on the Internet to see if the producer respects human rights, if there is some type of discrimination inside the company and between the employees, etc. All the negative things are online and it will not be very hard to find this kind of information.

▷ Stick to the certified products. Products you may not think-like furniture and paper—can also contribute to unsafe wildlife practices. Products with a Forest Stewardship Council seal ensure several things: that all trees cut down are replaced or allowed to re-grow naturally, that parts of the forest of origin are left untouched, and that the rights of indigenous people in the area are respected, and local workers are employed with a decent salary. Thus, the second group will try to find products that respect the rules from above.

▷ Promote products to stop or restrict legal ivory trade. Another group will work to create a list with products that they find in shops or shops themselves, so the people in the city or region will be able to be aware of what they can buy.

4. Presentation of Teamwork

During 20 minutes each group will present their work.

Working together (60')

After the team's presentation is time to work together for the creation of a to-do list with best practices and examples on how to prevent wildlife trade.

This list will be promoted in an online environment.

All the participants will try to see how clean the environment is. They will walk around the city in order to find places for relaxation. How many forests and parks there are? How clean are the parks? Find different types of pets or other animals!

This common report will contain the information collected by the teams and it will be disseminated in an online and offline environment by participants.

Final reflection and feedback

For the reflection: the participants will discuss the topic and how they can work after the session in order to continue this process and try to stop the illegal wildlife trade in their community and also in their country.

Use a clew or a small ball, start and talk about how you felt during the session and what is the most important thing that you learnt during it. After throw the clew/small ball to other participant and let them answer the question "How did you feel during the session?" and "What is the most important thing that you have learnt?" and so on.

Resources used:

The World Bank: Tools and Resources to combat illegal wildlife trade, . 2018, Retrieved from: <https://pubdocs.worldbank.org/en/389851519769693304/24691-Wildlife-Law-Enforcement-002.pdf>

Johnny Wood: Article World Wildlife Day 2020 – 5 things to know about the illegal wildlife trade. World Economic Forum, 2020, Retrieved from: <https://www.weforum.org/agenda/2020/03/world-wildlife-day-trade-poaching-endangered/>





Birds

Birds are vertebrate animals adapted for flight. Many can also run, jump, swim, and dive. Some, like penguins, have lost the ability to fly but retained their wings.

Birds are found worldwide and in all habitats. The largest is the nine-foot-tall ostrich. The smallest is the two-inch-long bee hummingbird. The fossil record shows that birds evolved alongside the dinosaurs during the Jurassic period 160 million years ago. The

best known fossil is Archaeopteryx, which was about the size of a crow. Most checklists used by bird watchers as well as by scientists say that there are roughly between 9,000 and 10,000 species of birds. According to a new study, there are at least 50 billion total wild



birds—or six birds for every human on the planet. The world’s most abundant bird is the familiar house sparrow, with a population of 1.6 billion. Coming in second is the European starling (1.3 billion), followed by ring-billed gulls (1.2 billion), barn swallows (1.1 billion), glaucous gulls (949 million), and alder flycatchers (896 million).

At the European regional level, 13% (71 species) of all 544 assessed bird species are threatened, with approximately 2% (8 species) Critically Endangered (CR), nearly

3% (15 species) Endangered (EN), and nearly 9% (48 species) Vulnerable (VU). A further 6% (34 species) are considered Near Threatened (NT). This translates as one in five bird species in Europe being threatened or Near Threatened with extinction. Four of the five top threats are related to habitat destruction and degradation. Agriculture, logging, invasive species, and climate change can each destroy—or at least seriously trash—bird habitats. Humans have been particularly destructive to forests, grasslands, wetlands, and other freshwater habitats



Hike, Learn and Nest Building Session

Despite their importance, birds are declining at a shocking rate. One in eight bird species is now threatened with extinction. The main goal is to improve the knowledge and understanding of participants on birds inhabiting the surrounding natural environment, and improve the nesting conditions of these animals.



Duration

2 hours (depends on the duration of the hike, for the non-formal education session approximately 45-60 minutes are needed.)

Aim / Learning outcomes:

- ▷ To improve knowledge on birds inhabiting the surrounding natural environment;
- ▷ To raise awareness on the importance of preserving biodiversity;
- ▷ To improve the conditions of birds' nesting areas / provide habitat for wild birds;
- ▷ To incentivize physical activity through meaningful eco-friendly activities and to connect participants with nature



Recommendations for facilitators

- ▷ When planning your “hike and learn” activity it is highly advised to study the nesting periods of wild birds and organize the event months prior to these periods. In case of April nesting time, nesting boxes should ideally be placed by February.
- ▷ Rule number 1: respect birds and keep them safe during their most vulnerable time - when they are in the nest.
- ▷ Plan or build your bird house specifically for vulnerable species that will be overwintering in your area.
- ▷ For birds that have multiple broods each season, it's best to remove old nesting material after each brood to prevent the spread of parasites.

Materials needed

Materials to build your own birds nest (1 piece):

- ▷ A sheet of newspaper
- ▷ A small bowl to shape your nest
- ▷ Masking tape
- ▷ Various natural materials such as pine needles, straw, grass.

Materials to build your own birdhouse (1 piece):

- ▷ A straight hard wood board at least 125 cm long, around 13 cm wide, around 2 cm thick
- ▷ A box of nails (50 pcs, 3 - 4 cm long, medium head size) and 4 pieces of screw (3 - 4 cm)
- ▷ hammer, measuring tape, hand saw, marker or pen, (electric) hole saw (adjust the size of the hole to the size of the bird you would like to attract, bottle of linseed oil
- ▷ Binoculars can come handy
- ▷ Mobile application recognizing birds and information booklet/card about local birds

Description of the session:

Theoretical input for the participants (30´)

Give the participants an informal presentation on the bird population inhabiting the selected hiking area. Provide information on the nesting period, alimentation and the importance of improving birds' living conditions and their role in preserving biodiversity. Birds not only maintain the balance in our ecosystem, but they also play an important role in seed dispersion and climate change indications.

Despite their importance, birds are declining at a shocking rate. One in eight bird species is now threatened with extinction. Raise the awareness among participants about this by teaching them about birds, we can begin to tackle the environmental crisis. We would advise you to contact experts/ornithologists to understand the local bird habitat where you organize the nest building session. Organizations that are experts in bird protection and about the local bird population may be found here. The theoretical input could be also provided during the hike.

Hiking/walking to the wild bird's natural habitat

Lead the team to the natural nesting location of the selected wild birds. During the hike/walk participants observe the natural environment and aim to spot different species and bird's nests. The utilization of mobile applications can facilitate the recognition of birds' voices, however the facilitator should be well prepared to identify these species.

Team work (30´ - 45´) - ideally participants work in teams of two or three. They use pre-selected materials to assemble bird nests or birdhouses (examples provided below). Depending on if the task is to build a birdhouse or nest, the team of participants can either start building a birdhouse using the tools and materials brought with them or they can collect dried grasses and other plants, sit on the ground, and try to weave it into a nest.

1. Birdhouse building: follow the instructions in the video(s). The team members should help each other marking the pieces to be cut from the wood, to do the sawing and nailing of the birdhouse as well as oil coating.
2. Nest building: all of the participants will most likely begin the project thinking it will be an easy task, but maybe dismayed by the end of it. If you ever have the opportunity (and permits) to dissect an abandoned bird nest, you'll discover that female birds are ingenious architects of solid, well-insulated, camouflaged homes for their eggs. Alternatively, participants can bring pre-assembled nests that can be placed in safe locations to avoid predators. In this case, however, the team work focuses on finding adequate locations for placing and fixing the pre-assembled nest.

Presentation of team-work and placing the birdhouses or nests (15´ - 30´)

Participants present their hand-created houses or nests and try to identify safe locations for placing them. Depending on the species, these nests shall be placed respecting the minimum nesting area distances and in safe places, higher up

a tree for example in order to avoid predators.

Final reflection and feedback

Ideally, participants should reflect on the learning outcomes in nature, close to the natural habitat of the birds.

Recommended questions that can help participants understand the key learning outcomes:

Why are birds important to maintain the balance of the ecosystem?

Which species did you spot along the hiking trail?

What are the nesting specificities and alimentation of the selected birds?

How was the cooperation within your group? Was it easy to assemble the desired birds home?

Was it easy or hard to assemble the desired nest or birdhouse?

Did you feel connected with nature?



Resources used:

Nathaniel T. Wheelwright and Bernd Heinrich: The Naturalist's Notebook: An Observation Guide and 5-Year Calendar-Journal for Tracking Changes in the Natural World around You, North Adams, MA: Storey Publishing, 2017.

Online sources:

Carolyn Byers: Into the Nest: Let's build a Nest, Madison Audubon, Retrieved from:

<https://madisonaudubon.org/blog/2018/5/22/into-the-nest-lets-build-a-nest>

Nature moments: How to build a bird's nest (from a bird's perspective) Retrieved from:

<https://www.youtube.com/watch?v=y3KgsFdtgjo>

From empty nest to first egg in less than 8 minutes! - BlueTit nest box live camera highlights 2021, Retrieved from: <https://www.youtube.com/watch?v=7EPJeg6R3SM>

Build a Bird House for Under \$5 in Under 5 Minutes, Retrieved from:

<https://www.youtube.com/watch?v=j0werPvrrPI>

Build the Easiest and Simplest Bird House Ever!, Retrieved from:

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



Bees

We, humans, are completely dependent on pollination working for our food supply – alternative methods to bee and insect pollination are ineffective, costly and do not contribute currently to a healthy and wealthy ecosystem.

All plants and animals, fungi and insects and their habitats constitute an important part of life on earth. The more species, the richer the biodiversity and the healthier and more durable ecosystems can exist. Biodiversity is

behind the food on our plates – for example - the ecosystem processes and organisms give us nutritious soil to grow vegetables in and contribute to the pollination of plants. And this is where bees and bumblebees and



many other insects play their part in a healthy planet's life. In order for there to be new seeds, and often also fruits and berries, plants need to be pollinated. Pollination means that pollen is moved from flower stalks to pistils so that the plants can be fertilized and set seeds. Bees are proven to be the one of the world's most important pollinators. We are dependent on there being enough bees, bumblebees and other pollinators. But pollination is also important for the plants themselves for them to survive, whether we eat them or not or whether we enjoy their flora splendor or not. The ability of plants

to reproduce is important for maintaining rich biodiversity, which in turn maintains human life as we know it. Thus, it is essential that not only do we keep the pollinators' natural habitat intact and protected, but make sure that the populations of for example honeybees stay healthy. This means we need to control pesticide usage, decrease our carbon footprint and overall pollution levels. We should plan our urban expansions in a nonintrusive and nature-friendly way as well as actively call for policies that support environmental sustainability and protection.



Move and Learn: Situational Roleplay

The game involves a mild to moderate level of physical activity which is complemented by non-formal education. The aim is to improve the knowledge and understanding of participants on the importance of environmental protection, especially when it comes to protecting the natural habitats of bees or indeed other pollinators.



Duration

1-1.5 hours

Aim / Learning outcomes:

- ▷ To demonstrate (and get a feel for) how habitat degradation and fragmentation, decrease in viable food sources can negatively affect wild pollinators (e.g. bee colonies);
- ▷ To raise awareness on the importance of preserving biodiversity;
- ▷ To incentivize physical activity through meaningful eco-friendly activities or games;
- ▷ To connect participants with nature and to deepen the appreciation for wildlife, especially insects.

Materials needed

- ▷ An open space, preferably outside and in nature such as a grassy field or meadow
- ▷ Cones or similar equipment to mark out the game area and stations
- ▷ A small ball to throw at gently (or give to) the participants to indicate that they are out of the game
- ▷ Pens and papers (e.g. cardboard) to prepare signs for the stations and write up the events

Recommendations for facilitators

- ▷ Visit the selected location for the gameplay before hand and make a test run if possible.
- ▷ Consult local experts on the topic if you want the theoretical part to be as high level as possible.
- ▷ Do the same if you want to know about the country or region specifically about the bee population's life and challenges for where you live.
- ▷ Adjust the field of the game to the number of people playing.
- ▷ Read the variations and adapt the gameplay according to your aims and your group's needs.
- ▷ It is highly important not to litter or leave any trash after you and your group!

Description of the session:

Theoretical input for the participants (15')

The facilitator gives an informal presentation on the lives of bees and their role in preserving biodiversity. The reasons why they maintain the balance in our ecosystem, and why they also play an important role in pollination. The theoretical input can also be provided during the trip to the selected location for the game.

Getting to the location (duration depends on the route and selected travel method (e.g. walking, running, cycling) the facilitator leads the team to the location of the activity.

Situational roleplay (30')

The facilitator introduces the game and facilitates the gameplay for the participants.

Reflection and evaluation (20')

participants jointly reflect on their feelings and experience during the roleplay.

Preparation:

- ▷ The facilitator should have a basic understanding of bees, their importance for our biodiversity and the reasons why humans should protect them and their natural habitats. äSee the theoretical section above)
- ▷ Participants should be asked to wear comfortable clothing and shoes, in which they can perform light physical activity in (weather appropriate)
- ▷ Create any signs to be used for

activity beforehand. Below is a list of potential reasons for bee deaths and colony collapse. These are quite broad; you can write specific events on the signs as well.; badly planned human settlement expansion/urban development, habitat defragmentation due to e.g. road construction, environmental stress (e.g. increase in traffic), polluted/poisoned food source (e.g. by pesticides), loss of plant diversity

Note: Although altered landscapes can provide floral resources for some pollinators, many bees and butterflies are habitat specific, and the loss of sites for overwintering, foraging, and nesting can be detrimental to those species

- ▷ As an additional component to boost the physical activity aspect: arriving at the selected location can be a part of a running or cycling trip.

Set up:

- ▷ Find a proper large space for the number of participants you are guiding through this experience. Preferably outside, in nature to increase the effect of the roleplaying and connection to nature.
- ▷ Place the cones and fix the area for your field of play.
- ▷ Use cones for the food source/stations on the field of play

Gameplay and instructions:

- ▷ Have the participants standing inside the field (their "broader natural habitat")
- ▷ Tell the participants to take on the role of working bees. They will be "flying" i.e. moving around the space, collecting nectar and pollen.
- ▷ Tell them about the stations/food

sources: e.g. flower rich meadows and an orchard of different fruit trees. These are the areas for the bees to gather their pollen and nectar to create honey and bee bread to feed the colony. It is group size dependent, but they should be told that each station can roughly support half the population.

▷ There will be 30 to 60 second rounds (duration decided by the facilitator) in which the participants move (“fly”) around in the field of play. They can move however they want, ask them to be loose, even to sing or dance if they feel like it.

▷ For the participants to fully appreciate the hard work the worker bees do daily, you can have them performing different exercises every round for the duration of the round, e.g. squats or hold the plank (see variations).

▷ At the end of each round the participants stop their stations and close their eyes.

▷ The facilitator gently throws a ball at the participants who have become affected by one of the many challenges facing bees and is now considered dead.

▷ The participants that drop out should still do the exercises for the duration of the rounds.

▷ It is up to the facilitator to decide how many people drop out each round and how many rounds are to be played.

▷ During each round the facilitator can narrate, sharing additional facts about bees or making up a fictional story about the history of this group for pure enjoyment.

Gameplay example:

A group of 10 people & 1 facilitator.

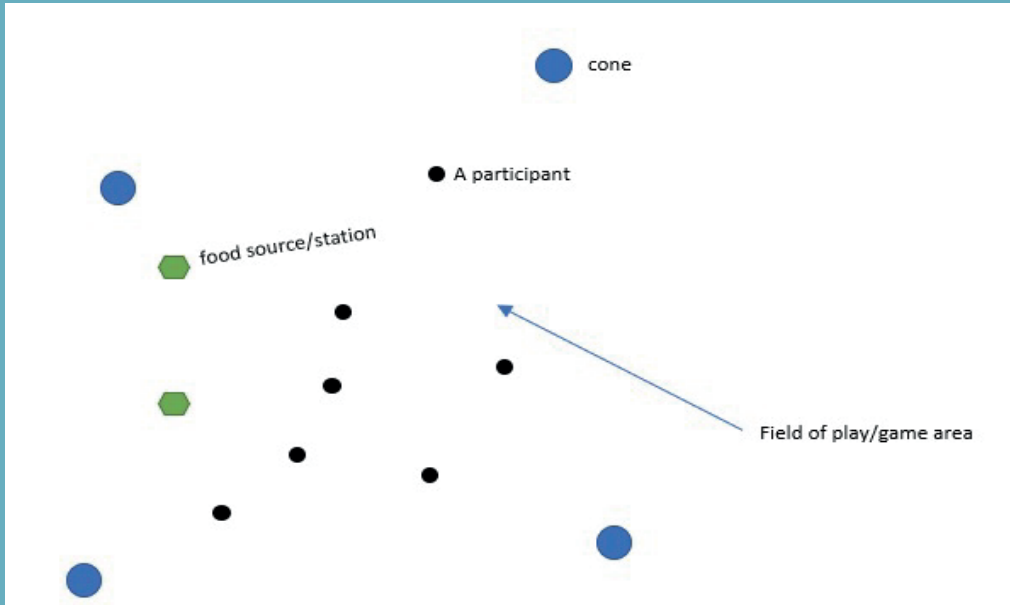
▷ 1st round: the participants take 10 steps and do a squat for 45 seconds. The 45 seconds are up, the participants stop and close their eyes. There is no adversity, so none drops out & the participants are instructed to open their eyes. The facilitator holds up the sign reading “all in order” (or any similar text) and continues the narrative.

▷ 2nd round: next round begins, 45 seconds of burpees. The 45 s. are up. Participants stop and close their eyes. The facilitator hits two participants with the ball. They are instructed to open their eyes, the sign reads “road and building construction, one of the meadows was partly destroyed”.

▷ 3rd round: next round begins, 45s. of running around and flapping with the arms. The round comes to an end, eyes are closed. Half of the participants receive the ball and drop out. Participants are asked to open their eyes, the sign reads “the orchard introduced a new type of pesticide, which is not bee friendly due to cost cuts”.

▷ 4th round: next round begins, 45s. of squats. The round ends. Participants close their eyes, the facilitator throws the ball at two people and moves a cone to decrease the area of the playing field. The remaining participants open their eyes and the sign reads and the narrative says, “part of the forest removed to make way for a block of flats”.

▷ 5th round: next round begins, 45s. planking. When 45s. are up, participants stop, eyes closed. No one drops out but one dropped out player returns; participants open their eyes and the sign reads “orchard owners switched back to bee friendly pesticides”.



▷ The facilitator thanks everyone for their participation and ends the game.

Final reflection and feedback

Ideally, participants should reflect on the learning outcomes in nature. The qualitative questions are to raise the level of discussion. Make sure to create an open and non-judgemental atmosphere which facilitates peoples trust and encourages them to briefly share their thoughts and emotions.

Recommended questions that can help participants understand the key learning outcomes:

Why are bees important not only to humans but all life?

What would happen if bees died out?

Will artificial pollination replace bees?

Has their view on the importance of protecting natural habitats of pollinators changed?

What were their emotions they felt as

the game progressed?

Do they feel more, or less connected to nature after playing the game?

What could have made this game more impactful? What did they like?

Resources used:

University of California - San Diego.
"Worldwide importance of honey bees for natural habitats captured in new report: Global synthesis of data reveals honey bees as world's key pollinator of non-crop plants." ScienceDaily. ScienceDaily, 2018, Retrieved from: <https://www.sciencedaily.com/releases/2018/01/180110101005.htm>

Let's reverse Habitat Loss, New York Bee Sanctuary, 2015, Retrieved from: <http://www.newyorkbeesanctuary.org/habitat-loss>

Stephanie Pain: The whole food diet for bees, Knowable Magazine, 2017, Retrieved from: <https://knowablemagazine.org/article/sustainability/2017/whole-food-diet-bees>

Bin och deras livsmiljö, Naturskyddsforeningen, 2021, Retrieved from: <https://www.naturskyddsforeningen.se/skola/naturnytta/faktablad-bin-och-deras-livsmiljo#:~:text=Alla%20bin%20i%20Sverige%20lever,larverna%20och%20de%20vuxna%20bina>

Videos:

Busy Bees! | Bumblebees and Honeybees, Amazing Animals, SciShow Kids, Retrieved from: <https://www.youtube.com/watch?v=taI54f5Rp5Y>

How Do Honeybees Get Their Jobs?, National Geographic, Retrieved from: <https://www.youtube.com/watch?v=9ePic3dtykk>

The Death Of Bees Explained – Parasites, Poison and Humans, Retrieved from: <https://www.youtube.com/watch?v=GqA42M4RtxE>





Herbs

herbs are a widely distributed and widespread group of plants, excluding vegetables and other plants consumed for macronutrients, with savory or aromatic properties that are used for flavoring and garnishing food, for medicinal purposes, or for fragrances.



Herbs have a variety of uses including culinary, medicinal, aromatic and in some cases, spiritual. General usage of the term “herb” differs between culinary herbs and medicinal herbs; in medicinal or spiritual use, any parts of the plant might be considered as “herbs”, including leaves, roots, flowers, seeds, root bark, inner bark (and cambium), resin and pericarp. Another sense of the term herb can refer to a much larger range of plants, with culinary, therapeutic or other uses. For example, some of the most commonly described herbs such as sage, rosemary and lavender would be excluded

from the botanical definition of a herb as they do not die down each year, and they possess woody stems. In the wider sense, herbs may be herbaceous perennials but also trees, subshrubs, shrubs, annuals, lianas, ferns, mosses, algae, lichens, and fungi. Herbalism can utilize not just stems and leaves but also fruit, roots, bark and gums. Therefore, one suggested definition of a herb is a plant which is of use to humans, although this definition is problematic since it could cover a great many plants that are not commonly described as herbs.



Herbal hike

Walking in the natural setting with herbal experts while discovering secrets of herbal meadows during the walk. Participants will get to know how to recognize well known edible herbs as well as healing herbs.



Duration

2-5 hours

Aim / Learning outcomes:

- ▷ To get to know local edible herbs as well as healing herbs;
- ▷ To identify herbs by using free apps iNaturalist and iTree;
- ▷ To learn how to collect, dry and store healing herbs;
- ▷ To observe and appreciate nature and a local habitat and learn to be more attentive towards the environment

Materials needed

- ▷ Printed pictures of 4 European common herbs with descriptions (see Annex III. below the text).
 - ▷ Outdoor wear, hiking shoes, water and snacks, sun protection. Scissors or a little knife for collecting herbs and paper bags to carry herbs home.
- Optional: herb book, apps iNaturalist and iTree

Recommendations for facilitators

- ▷ Walking in nature and hiking is an activity recommended to start in the morning rather than in the afternoon.
- ▷ Check the weather well in advance and in case of rain reschedule for the earliest convenient sunny day. Herbs have to be collected dry and blossoming.
- ▷ Plan your walk in advance using maps, choose the spot for collecting herbs and plants ideally meadow, where the workshop will be held.
- ▷ Inform participants in advance about possibilities of use of toilets, water fountains and refreshments if any on the way.
- ▷ Ask participants to bring with them snacks or light lunch or organize outdoor lunch for the group yourself.
- ▷ Apply the Leave no Trace policy with your group which means that everyone should leave the spot where the herbal hike took place how they found it.
- ▷ There are lots of things to see outside in the natural setting, as long as you are quiet. Have a signal that lets the group know they need to be quiet to observe wildlife.

Description of the session:

Theoretical preparation: (30´)

- ▷ Upon meeting the group informs participants about the schedule of the day, length, duration and altitude of the hike.
- ▷ Inform participants about planned breaks (not to leave anybody behind) and use of the toilet and possible refreshments.
- ▷ Set up the time for the refreshment and time and place where the herbal workshop will be held.

Method 1:

- ▷ Pass to the participants printed materials with most well-known herbs. Ask participants to study material for 10 minutes before you go for the hike and provide explanations about herbs also during the hike, so they can observe and try to spot herbs while walking.
- ▷ Ask participants to wait while collecting the herbs till you reach the meadow and enjoy observing wildlife while walking. This way the group will be consistent and ideally walk at the same pace not leaving anyone behind.
- ▷ After arriving at the spot, let participants sit in the circle on the ground. Explain to them facts about how to collect herbs.

Teamwork – Herbal workshop (45´)

- ▷ Divide participants in pairs or small groups and ask them to discuss the herbs pictured on the printed materials. Ask questions: Have they seen any during the hike? Have they already collected them in the past and for what purpose?

- ▷ After 10 minutes of discussions, ask participants to discover the meadow itself within the small groups, identify the herbs and collect them. Ask participants to double check the herbs before collecting them within the small group.
- ▷ Ask the groups to return back to the circle after 20 minutes and let each group show to others what they have collected and for what purpose they like to use the herbs.

Method 2:

- ▷ Introduce partners of free apps iNaturalist and iTree and ask participants to download the apps to their smartphones.
- ▷ Ask them to take pictures of the herbs they have seen during the hike and upload them to these apps and identify the herbs and keep the list on the app.
- ▷ By the end of the hike the group will discuss the herbs identified and share the information such as the name of the herb, the shape and the secrets about the herbs.

Method 3:

This activity is recommended especially for the participants aged between 8-16.

- ▷ Start the herbal hike competition.
- ▷ Divide the participants into groups paying attention to gender and age.
- ▷ Ask groups to go around the largest possible perimeter of the area and to collect as many herbs as possible.
- ▷ Once again remind them of the rules about respecting and preserving nature. So this way participants will not only walk, but they can also run.
- ▷ At the end of the allotted time, the team with the most collected herbs is

the winner:

- ▷ A kind of reward: a book about herbs would be very much appreciated.

Rules for respecting and preserving nature:

Walk to the desired spot for collecting the herbs.

- ▷ Do not harvest all of the herbs and do not destroy the meadow
- ▷ Collect only healthy tops and flowers of bright coloured flowers and young leaves
- ▷ Collect only clean tops and flowers without bugs and spider webs
- ▷ Collects herbs at full blossom or just about to reach full blossom
- ▷ Do not collect herbs at the polluted areas for example near the roads

Facts about how to dry and store herbs:

- ▷ Bring the herbs home in paper bag, which allows “breathing”.
- ▷ Remove dry and dirty bits and check for bugs and remove them.
- ▷ Place herbs in the dark dry place (baking tray placed on the top of the wardrobe or in a dark room) for a few days. You can also use frames with nets if you have any. Herbs need to dry slowly in the room temperature or slightly warmer place. Check every other day if they are dry.
- ▷ After the herbs are dry, put them in the dark jar, paper bag and store in a dark place in the cool room.
- ▷ Direct sun and higher temperature are not recommended for drying. Herbs would lose their healing benefits.

Final reflection and feedback (20-30)

Debriefing will be based on following questions:

- ▷ How did you feel in nature?
- ▷ How would you describe your activity?
- ▷ Was this activity useful?
- ▷ How did you choose which herbs to collect?
- ▷ How was the cooperation within the group?
- ▷ How can you connect this workshop with real life situations?





Mushrooms

Fungi kingdom comprises approximately 2.2 to 3.8 million species from soil-borne to marine-environment inhabitants. Around the world are consumed and harvested many different species of the mushrooms.

Mushrooms represent a fast and tasty food that does have a high nutritional value and can be processed in several ways. Fungal species can be multicellular or unicellular eukaryotic microorganisms. Mushrooms are

nutritionally very good and balanced, but it also depends on the location of their growth. Most of them contain carbohydrates, proteins with low fat concentrations. They also contain essential fatty acids such as linoleic, oleic



and so. Fresh mushrooms are composed mainly of water (around 90%), carbohydrates (2.5–5.8%), proteins (2.6–4.0%), fats (0.2–0.7%), and fibers (0.6–1.1%). To be able to harvest them directly from nature, we of course need to know the mushrooms. As an example, we can take into the consideration France which has more than 3 000 varieties, but only some of them are edible. The one advice which will always be valid when it comes to the mushrooms is that, if you cannot identify it, do not eat it! It's also advisable to make sure that you always pick a whole mushroom (so that you can properly

identify it), never pick it from industrial ground (where it may have come into contact with pollutants) and always take a photo before cooking it. The technique of harvesting mushrooms is also very important. They should never be torn vertically up, because with a fungus you pull out a piece of soil in which the undergrowth is located, which is important for fungal growth. It is invisible and is located deeper under the leaves and soil. The undergrowth is actually the body itself, the mushrooms are just the fruits of the undergrowth.



Mushrooming Hiking

Walking in the natural setting with herbal Harvesting mushrooms is an interesting and another eco-friendly sport activity while spending time in the forest. Therefore, this session combines both – mushroom picking and hiking.



Duration

From 2 to 5 hours
(depending on hiking length)

Aim / Learning outcomes:

- ▷ In this session description we avoid specifying concrete mushrooms as it depends on each country's reality.
- ▷ We recommend organizing such a hike only under supervision of the person with experience.

As part of their learning experience participants can install some of the mushrooming recognition apps and also try to enhance their memory of which species are edible and not protected while hiking.

- ▷ Connect collecting mushrooms together with collecting trash if you find some on the way, of course in different bags.

Materials needed

- ▷ Knife to cut the roots of mushrooms
- ▷ Basket or mesh bag



Recommendations for facilitators

- ▷ Walking in nature and hiking is an activity recommended to start in the morning rather than in the afternoon.
- ▷ Check the weather well in advance and in case of rain reschedule for the earliest convenient sunny day. Herbs have to be collected dry and blossoming.
- ▷ Plan your walk in advance using maps, choose the spot for collecting herbs and plants ideally meadow, where the workshop will be held.

- ▷ Inform participants in advance about possibilities of use of toilets, water fountains and refreshments if any on the way.
- ▷ Ask participants to bring with them snacks or light lunch or organize outdoor lunch for the group yourself.
- ▷ Apply the Leave no Trace policy with your group which means that everyone should leave the spot where the herbal hike took place how they found it.
- ▷ There are lots of things to see outside in the natural setting, as long as you are quiet. Have a signal that lets the group know they need to be quiet to observe wildlife.

Description of the session:

Session is divided into 3 parts:

1. Opening discussion

Do you like eating mushrooms?

Do you think mushrooms are healthy?

Have you ever picked mushrooms?

If yes, do you prefer to collect them or buy them in the supermarket?

2. Introduction and Theoretical input

Where is possible to find them?

In order to grow, mushrooms need special conditions which include constant humidity, low temperature, ventilation, light exposure and suitable substrate composition. Variations in environmental conditions are directly linked to the morphology and nutritional value of mushrooms. On the other hand, they can grow very fast. Even with regard to these conditions, it is therefore very popular, for example, in Slovakia to look for them especially early in the morning.

How to harvest mushrooms sustainably?

We not only need to be able to distinguish edible mushrooms from non edible ones, but also remember that some mushrooms can also be protected and you can be fined for collecting them. Especially the wild mushroom foraging for commercial gain damaging local ecology. Mushrooms are the fruiting bodies connected to vast network-like organisms that span the forest. The good general collecting tips for those who collect the mushrooms for their own consumption is that: not to forget that the wildlife need mushrooms too: only

collect what you will personally use; only pick from plentiful populations and do not collect more than half of any one species at a location. And the bulk of the mushroom is below the surface: take care not to damage it or trample surroundings. That is why the primary principle of sustainable mushroom hunting is to avoid damaging or killing native plant species. Once you find the mushroom, you have to realize that you are only harvesting a small part of it. But in general they are often massive organisms which play a stewardship role within their environment. They are living symbiotically also by feeding many species or breaking down dead material and last but not least, enriching the forest in the process.

3. Mushrooming Hiking

Place and length of the hike should be selected together with experts, depending also on the participants physical conditions.

Final reflection and feedback

Divide participants into groups and give them the following evaluation question to talk about.

- ▷ How did you like the event?
- ▷ Do you consider the event and knowledge you gained as useful?
- ▷ Would you like to attend some other similar events in the future?



Resources used

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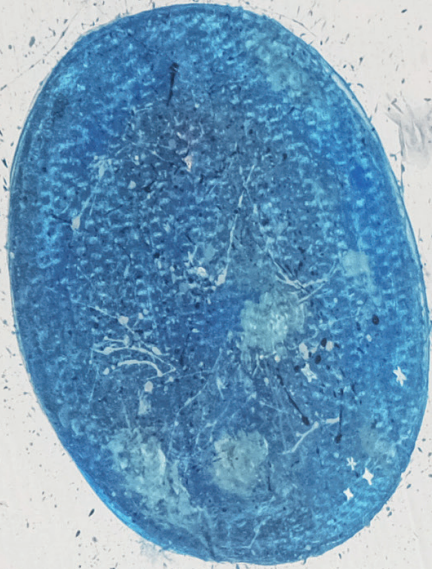
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SAVE



THE

PLANET





**SPORT &
PHYSICAL
ACTIVITIES**

**WHILE LEARNING
ABOUT GLOBAL
ENVIRONMENTAL
PROBLEMS AND
ITS SOLUTIONS**

Climate change and Global warming

An IPCC special report on the impacts of global warming of 1.5 °C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty.



Global warming is defined as an increase in combined surface air and sea surface temperatures averaged over the globe and over a 30-year period. Unless otherwise specified, warming is expressed relative to the period 1850–1900, used as an approximation of pre-industrial temperatures in AR5. For periods shorter than 30 years, warming refers to the estimated average temperature over the 30 years centred on that shorter period, accounting for the impact of any temperature fluctuations or trend within those 30 years.

Climate adaptation refers to the actions taken to manage impacts of climate change by reducing vulnerability and exposure to its harmful effects and exploiting any potential benefits. Adaptation takes place at international, national and local levels. Subnational jurisdictions and entities, including urban and rural municipalities, are key to developing and reinforcing measures for reducing weather- and climate-related risks.



Greenhouse effect modeling

Climate change and Human impact on it

Climate change and global warming affect all of humanity and any information on the subject would be useful and should reach as large an audience as possible. Therefore, we propose to combine training activities with an outdoor sporting event to emphasize the strong link between sport activities and the environment protection with human health.



Duration

3 hours

Aim / Learning outcomes:

- ▷ To gain understanding of the the basic environmental concepts and aim for changes in ones behavior;
- ▷ To stimulate development, giving the opportunity to experiment with water, air, earth soil and plants;
- ▷ To develop and maintain respect for nature, to realize the impact of human activity on it and learn how to contribute with individual actions to environment preservation;
- ▷ To create active, creative and peer-based learning space, using the non-formal education.

Materials needed

- ▷ Two glass jars with screw caps for each group;
- ▷ Two thermometers (to fit in the glass jars) for each group;
- ▷ Aluminum foil;
- ▷ Black cardboard;
- ▷ Stopwatch;
- ▷ Flipcharts;
- ▷ Colour pencils;
- ▷ A ball;
- ▷ Colored sticky notes;

Recommendations for facilitators

- ▷ The facilitator is expected to create an atmosphere that facilitates and encourages communication and activity of the participants;
- ▷ It is very important that each participant feels safe and secure so that they can safely engage in new activities;
- ▷ The facilitator has to ensure group's energy level is up and everyone is ready to have a productive workshop and eco-friendly activities;

- ▷ Players must work together to make decisions and solve problems.

Examples on how such atmosphere could be created:

1. Robert Cserti: How to Improve Your Facilitation Skills (and be a Great Facilitator), Session Lab, 2019, Retrieved from: <https://www.sessionlab.com/blog/facilitation-skills/>

2. Creating an Effective Training Environment, Ready Training Online, 2022 Retrieved from: <https://readytrainingonline.com/articles/effective-training-environment/>

Description of the session:

1. Theoretical input (20'-30')

Welcoming the participants, purpose and the objective of the activity, suggestions and expectations from the participants. Participants are divided into mixed groups, 4-6 participants (gender ballanced). Each group will receive materials for the workshop.

2. Teamwork (60')

- ▷ Wrap glass jar No.1 with aluminum foil on the inside;
- ▷ Wrap glass jar No.2 with black cardboard on the inside;
- ▷ Place a thermometer in both jars, close tightly with a screw;
- ▷ Count the time (3 min);
- ▷ Watch!

3. Presentation of Teamwork (50')

This session will be divided into two activities:

What **have we learned as a team?** (20'):

Presentation: After completing the tasks, each group explains to the other participants what is the result and what they have learned from the experiment.

Conclusion: The temperature rises faster in the jar wrapped in black cardboard. The sun's rays that reach the earth are divided into short (light) and long (thermal) electromagnetic rays. Glass easily transmits light and more difficult heat rays. In the jar with the aluminum foil the rays are reflected by the metal. In the black cardboard jar, the rays are

absorbed by the cardboard. Cardboard only radiates energy, but the wavelength is greater than that of the sun's rays and they cannot go outside. This is how the Earth's atmosphere works. It transmits solar energy that reaches us, mainly in the form of light and is used by organisms. The problem is that greenhouse gasses do not allow heat to pass through the atmosphere, so it returns as the temperature rises.

What can be my contribution? (30'):

Relay game:

Each participant will be asked to take a colored piece of paper and write on it the impressions they received and what they would do to help prevent climate change.

Both teams will be arranged in two rows, and on the opposite side will be placed flipcharts. Each participant must reach the flipchart by running and overcoming obstacles on their way, stick their note (promise to nature) and return to their team, touching the hand of the next participant to convey their message. The relay game continues until all participants are lined up. Read to the participants all the sticky notes. Thus, each participant can learn and take ideas from others for their own contribution to nature, which they could realize.

Participants will learn through their own active work during the workshop activities. This is a learning process in which everyone takes an active part and participants learn a lot from each other. Players must work together to make decisions and solve problems.

Teaching methods used: stimulation of creative thinking, interactive teaching methods, learning by doing.

Ideas of actions against the greenhouse effect (facilitator's resources):

1. Make your voice heard by those in power.
2. Eat less meat and dairy.
3. Cut back on flying.
4. Leave the car at home.
5. Reduce your energy use, and bills.
6. Respect and protect green spaces.
7. Invest your money responsibly.
8. Cut consumption – and waste.
9. Talk about the changes you make.



Final reflection and feedback

Create a circle and throw a soft ball in the circle. Everyone who receives the ball answers a question from the facilitator. The questions are related to the activities carried out.

Examples of questions to be asked:

1. What causes the greenhouse effect?
2. What is the greenhouse effect?
3. Do you know any interesting facts about the greenhouse effect?
4. Which gas causes the greenhouse effect?
5. How to prevent the greenhouse effect?

The ball is thrown in the circle and the participants give their answers when receiving it. The game is used after the session to make a quick check of what has been learned.

Resources used

Sandanski Eco-Campus. "Handbook with eco-activities for students from primary, primary and secondary education". PROJECT: ("Establishment of ECOCAMPS – as a Way of Strengthening the Cross-border Environmental Education and Training") <Greece-Bulgaria:2007-2013>; Acronym:ECOCAMPS; Retrieved from: https://haskovo.riosv.com/files/PR%202018/Ekopomagalo_bg.pdf





Waste Pollution and Recycling

The world is producing twice as much plastic waste as two decades ago, with the bulk of it ending up in landfill, incinerated or leaking into the environment, and only 9% successfully recycled, according to a new OECD report.

Waste is not only an environmental problem, but also an economic loss. On average Europeans produce 481 kilogrammes of municipal waste per year. An increasing share of this is recycled or composted,

and less is sent to landfill. Poor waste management contributes to climate change and air pollution, and directly affects many ecosystems and species.



Landfills, considered the last resort in the waste hierarchy, release methane, a very powerful greenhouse gas linked to climate change. Methane is formed by microorganisms present in landfills from biodegradable waste, such as food, paper and garden waste. Depending on the way they are built, landfills might also contaminate soil and water.

Turning waste into a resource by 2020 is one of the key objectives of the EU's Roadmap to a Resource Efficient Europe. The roadmap

also highlights the need to ensure high-quality recycling, eliminate landfilling, limit energy recovery to non-recyclable materials, and stop illegal shipments of waste.

-
The potential gains are immense, and they can facilitate the EU's move towards a circular economy, where nothing is wasted. Moving up the waste hierarchy offers environmental gains, even for countries with high recycling and recovery rates.



The plastic-ca(t)ching hunt

Plastic pollution has become one of the most pressing environmental issues, as rapidly increasing production of disposable plastic products overwhelms the world's ability to deal with them. Plastic pollution is most visible in developing Asian and African nations, where garbage collection systems are often inefficient or nonexistent.



Duration

2 - 4 hours
(depending of
the number of
boxes used)

Aim / Learning outcomes:

- ▷ To learn about the scope of plastics waste;
- ▷ To become aware that small daily actions can directly influence the overall waste management;
- ▷ To promote a habit of recycling and upcycling;
- ▷ To include sport challenges inside the environmental ones, to promote both the individual and the planet's welfare.

Materials needed

- ▷ Small caches or carton boxes, as much of the contents and the challenges as are needed for the activities.
- ▷ Paper sheets, pens, trash bags and gloves.
- ▷ Items to indicate the presence of the caches.

Recommendations for facilitators

- ▷ Check on the weather conditions the day before the workshop, so as to adapt it in case of rain.
- ▷ Advise the participants in advance to wear comfortable shoes and clothes.
- ▷ Adapt the activity in case some group members are disabled.
- ▷ Ask more staff members to help you facilitate around all the perimeter to

be covered, so as to be sure that all the groups find the hidden boxes and fulfill the challenges.

SAVE
OUR
EARTH

Description of the session:

Theoretical input (20')

Kahoot quiz: the facilitator will create a quiz for the occasion or use an already existing one on the Kahoot website² with appropriate duration and topic. The quiz should be based on the following everyday life questions and answers:

- ▷ How is the plastic made? It is made from oil, cellulose, coal, natural gas, and salt.
- ▷ Name five items made of plastic that you use in your everyday life. Trash bags, bottles, cups, curtlelry, food envelopes.
- ▷ What happens to plastic waste? Never fully goes away, it just breaks into little pieces.
- ▷ Where the majority of plastic waste ends up? In the oceans.
- ▷ Why is plastic dangerous for marine life? Animals mistake it for food and cannot digest it.
- ▷ How long does it take a plastic bag to decompose? From 10 to 100 years.
- ▷ How long does it take for a plastic bottle to decompose? From 450 to 1000 years.
- ▷ How plastic pollution affects poverty? Low income people are buying the cheaper products that contain dangerous chemicals.
- ▷ Burning of plastics is not a solution to solve the pollution created by its usage since it will affect human health. True.
- ▷ How can you help solve plastic pollution? Avoiding the single-use-plastics in your everyday life.

Activity explanation (10')

Divide the participants in smaller groups (it depends on the total number of them) and introduce them to the open air activity. A certain perimeter is covered by hidden boxes containing information on the workshop topics, physical challenges and direct action that influences the participants' habits. For one hour and a half activity, 8 boxes is the adequate number, but you can make the hunt last longer by hiding more boxes, with more contents and physical challenges.

Activity development (90')

Every group is given a different starting point to begin and end the activity with the same learned concepts and the same physical challenges passed. The only rule is that none of the groups can stay in the same box cache at the same time. From the time one group discovers a box to the moment it has to leave it in its previous cache, the group has only 5 minutes to read the content, understand it and plan how to deal with the challenge. Groups of participants will know that a box is close through signals that are chosen by the facilitators. Here there are 5 examples to be used for the boxes to be hidden/found:

- 1) A waste is any unwanted material that results from human activity. Every member of your team has to find a "waste" and run to the closest recycling bin where that waste is supposed to belong.
- 2) Humans produce around 2 kilos of trash each day. Make a relay race among your team members, where every member of the team is running/walking in a line. The front position in line is taken in turns by all the team members

when they are supposed to talk about their daily trash production and how to reduce it.

3) The safest waste management process is composting.

Discuss with your team member other possible ways of managing your daily trash, if any. Then, do 10 push-ups.

4) Composting is a slow process, but it enriches the same soil that gives us the products for our nutrition.

Together with your team members, consider the introduction of composting in your daily routine. Then, make pairs and make a 10 meters race like you were a wheelbarrow.

5) Reduce, reuse, recycle.

With your teammates, collect all the trash you find from this box to the other. Recycle what you collect if possible. If not, boost your creativity and make an ephemeral piece of art. At the end of your hunt, check the CO₂ emissions you and your colleagues avoided to leave through this workshop³.

Final reflection and feedback

In the last 10 minutes of the activity, guide the participants through a collective understanding of the topics that have been treated indirectly, such as plastics pollution, waste management and recycling.

Evaluation

The facilitator learns if the activity and the lesson from it have been appreciated through a short dynamic.

Ask the participants to define how they felt in one word, and motivate that feeling or word, while staying in a circle with the others. It will also be an opportunity to discuss whether it is worth starting recycling, a plastic-free lifestyle, and implementing a less polluting behavior during everyday activities. Participants will be asked to provide practical daily actions that can reduce the environmental impact in their lives

Resources used

Geocaching mobile app, Available on: <https://www.geocaching.com/play/mobile>

Kahoot quiz, Available on: <https://create.kahoot.it/details/be5154d1-972f-44bf-8d52-9cf84fb676c0>

The Capture Club App, Available on: <https://www.thecapture.club/>





Air pollution and Transport

Air pollution and climate change were recognised as the top environmental global threats to human health in 2019 by the World Health Organization (WHO).

Recent data indicates that there are currently approximately 9 million annual deaths from global air pollution with >99% of deaths due to household air pollution, and nearly 90% of deaths due to ambient air pollution occurring in low- and middle-income countries,

where burning of solid fuels for cooking and heating is a major health concern. Over 25% of premature deaths associated with air pollution were reported to be respiratory in nature. Minimizing airway exposure generally also protects against cardiovascular effects



of air-pollution. Since there is no known level of air pollution exposure that is risk free, the greatest benefits for health may occur when relatively low air pollution exposure levels are reduced even further.

The automobile is one of the most important inventions of the past 150 years. This is not only because it provides convenient transport and great independence, but also because of the problems it can cause. Namely the air pollution as a threat to public health, which in consequence contributes to global

warming, as well as traffic congestion and the expansion of roads creating a loss of urban space. On a personal level, too, you may find that using a car is not necessarily the best choice. For instance, the costs of fuel and car maintenance can add up quickly. Great alternatives to car are: Walking, biking, bus, mass transit rail, Train, carpooling, car sharing, alternative fuel vehicles, electric vehicles, hybrid vehicles



One step back of air pollution using alternative methods

Air pollution is the number one cause of premature deaths from environmental factors, according to the European Environment Agency, with cities the worst hit. Pandemic restrictions imposed from March 2020 cleaned the air rapidly, but currently in some cities the air pollution is now worse than before the pandemic.



Duration

3 hours

Aim / Learning outcomes:

- ▷ To gain awareness about air pollution and its possible reduction;
- ▷ To understand cars as a major contributor to air pollution and learn about alternative forms of transportation;
- ▷ To explain that environmental engineers focus on keeping air and water clean for humans and to protect the environment;
- ▷ To learn about sustainability, the Sustainable Development Goals and renewable energy sources and their usage

Materials needed

- ▷ Video projector
- ▷ Laptop
- ▷ Flipchart
- ▷ Markers
- ▷ Clew/small ball
- ▷ A room if you want to do the session inside or a silent place if you want to organise the session outside

Recommendations for facilitators

- ▷ Create point A and point B for the competition. This does not need to be a slow road without traffic jams. We recommend you to choose a place where it is difficult to park the car or where it is hard to stay in traffic in the morning or in the evening.
- ▷ Encourage participants to use their bikes, scooters and other eco-friendly ways of transportation (except electric cars during the competition) and if there are

some participants that will not have access to the bikes, scooters etc. try to find or rent for them.

- ▷ Encourage participants to think out of the box and to consider the positive and negative aspects of this issue. It is important to help participants to think about disadvantages and advantages even if air pollution is a bad thing.
- ▷ Encourage participants to use alternative types of transport when coming to session.

Description of the session:

Ice-breaking games (15')

Participants will create a circle and each of them will say their name and they will choose a sign or something related to them. Next person will say the name and the sign of the previous participants and add his/her name and a sign and so on. It is important to create cohesion between the group, to make them feel free to talk and to create some friendships.

Theoretical inputs (30')

Taking about air pollution and how it affects us and also about alternative transportation forms;

- ▷ what is air pollution;
- ▷ impacts of air pollution;
- ▷ the Story of Kanchha - understanding impacts of air pollution;
- ▷ presentation of Sustainable Development Goals;
- ▷ alternative transportation and encouragement to use eco-friendly transport ways;

Team work (55')

Divide participants in three groups, maximum 5 participants in one group and each group will have one of the three tasks:

- a) Evaluate current sustainable urban transport practices and their effect on natural resources, environment and local economy
- b) Evaluate the alternative transportation and other activities that can help to reduce the air pollution at local level. Participants should try to evaluate as many alternative transportation methods

as they can find. It is recommended to organize a world cafe on this topic.

- c) Discuss the pros and cons of your favorite or most used way of transportation

Group presentation and discussions about each group's work in order to improve their research and to see what are the ideas and the opinions of other participants.

Final competition (40')

Participants will draw lots and they will start the competition from point A to point B with different types of transportation (walking, running, using a bicycle, rollers, scooters, electric cars and so on). The award will be prepared for the first three people that will arrive at point B (final).

After the competition, participants will be encouraged to express their feelings about the road, about how they feel, about how hard and difficult it was to resolve the task or if they could do other activities during the competition (reading for example or listening to a podcast and so on).

Final reflection and feedback

Working in pairs, the main task is to create a local strategy in order to reduce the air pollution. The strategy would be presented to the local authorities with the help of NGO partners in the project (50'). The participants will be split in groups and each group will discuss one of the following ideas:

- ▷ congestion charging;
- ▷ environmental (low-emission) zones;
- ▷ car-sharing schemes;

- ▷ parking policies;
- ▷ cycling/walking policies.

Reflection of the topic and evaluation of the session (30')

For the reflection: the participants will discuss the topic and how they can work after the session in order to continue this process- to talk with public institutions and to reduce air pollution as much as they can at local level and why not at national level.

Evaluation: use a clew or a small ball, start talking about how you feel during the session and what is the most important thing that you learnt during the session. After, throw the clew/small ball to the other participant and they should answer the questions: "How did you feel during the session?" and "What is the most important thing that you have learnt" and so on.

Resources used

Anco Hoen, Denise Hilster, Julius Király, Joukje de Vries, Sander de Bruyn: European Public Health Alliance. Report air pollution and transport policy at local level, 2021, Retrieved from: <https://epha.org/air-pollution-and-transport-policies-at-city-level/>

Michal Krzyzanowski, Birgit Kuna-Dibbert and Jürgen Schneider: Health effects of transport-related air pollution. The World Health Organization, 2005, Retrieved from:

https://www.euro.who.int/__data/assets/pdf_file/0006/74715/E86650.pdf

Center for Science and Environment. Training Programme on Clean Air and Sustainable Transportation Strategies for Liveable Cities, 2014, Retrieved from: <https://www.cseindia.org/training-programme-on-clean-air-and-sustainable-transportation-strategies-for-liveable-cities-5587>





Natural Resources Exploitation and Renewable Sources of Energy

The Earth's natural resources are vital to the survival and development of the human population. However, these resources are limited by the Earth's capability to renew them. Freshwater, forests and harvesting products are renewable, provided that

Fossil fuels and metal ores are non-renewable. Although many effects of overexploitation are felt locally, the growing interdependence of nations, and international

trade in natural resources, make their demand and sustainable management a global issue. This chapter focuses on major developments in the use of renewable and



non-renewable resources in Europe in the context of global trends. Food, water, forests and wildlife are all renewable resources. For resource use to be sustainable, the consumption rate should be maintained within the capacity of the natural systems to regenerate themselves. Current rates of depletion of the Earth's stocks of renewable resources and levels of pressure imposed on their regenerative capacity by means of production and consumption might already be, in some cases, beyond this threshold. Minerals, oil, gas and coal are non-renewable

resources: their use as materials and energy sources leads to depletion of the Earth's reserves. However, the time period during which reserves can be available can be extended by recycling or improving the efficiency of use. Eventually, limitations to the extent to which more efficient processes may expand the use of non-renewable resources stocks will be reached, requiring substitution with renewable resources and restrictions on the volume of activities that can be sustained by existing stocks.



Human Power House

The natural resources we have on earth are limited, generating all the power we need takes a toll on Earth and we should be careful about their use. That's why humankind searches for alternative ways to generate power with renewable sources. Wind or water moves and its energy is converted by a generator into electricity. And people MOVE TOO!



Duration

1 hour

Aim / Learning outcomes:

- ▷ To understand the energy consumed through sports;
- ▷ To calculate how much exercise it takes to balance the energy footprint;
- ▷ To raise awareness of natural resources exploitation.



Materials needed

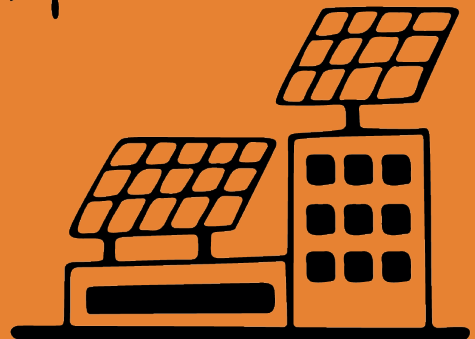
- ▷ Depends on the sport activity chosen
 - For volleyball: volleyballs and nets
 - ▷ For frisbee: frisbee discs

Recommendations for facilitators

- ▷ Monitor the participants so that they do not do too much exercise in the physical activities in case their energy consumption is too high.



CLEAN ENERGY



Description of the session:

Theoretical introduction

Start the activity with the discussion about natural resources and emphasize that the natural resources we have on earth are limited, generating all the power we need takes a toll on Earth and we should be careful about their use.

That's why humankind search for alternative ways to generate power with renewable sources. Wind or water moves and its energy is converted by a generator into electricity. And people MOVE TOO! There are some machines that harness the power of humans, for example, Free Electric stationary bike that can turn 1 hour of pedaling into 1 day's worth of electricity. The flywheel drives a generator that charges a battery storing electricity. Owners of some gyms retrofit exercise equipment with generators which help them to offset the costs of the gym's electric bill.

Emphasize to participants, that although we don't have generator, the energy we spend daily can be linked with other physical activity. During the session, participants will calculate the amount of energy produced for a normal day and do exercise to total this amount.

Intellectual part

Participants individually or in the teams should brainstorm about the quantity of energy they consume per day in their households. Remind them to think about all things they use. Calculation can be done in simple way - for example: how many hours of use of entertainment appliance like TV, computer, phone; or

can be done in more detailed way using online calculator.

Physical part

After having the final number, they will need to achieve same number of energy consumption but in physical activities. Set an example as the following: see how much electricity energy we consume per day, and do the calculations considering for instance that 10 hours of usage of household electricity is equivalent to a 5km run, or 20 push ups + 20 sit-ups, etc.

The values can be chosen by the facilitator and should be adapted to the participants. Facilitator can choose and also add some other ideas related to the protection to the environment - for example - 10 hours of usage of electricity is equal to the collection of one bag of trash collected in the forest; 100 hours a week of use is equal to planting tree. Options can be diverse and each participant can choose some other physical activity or mix them (half of two activities). Facilitator should write down quantities on the board.

Facilitator can choose also team sport or game where the energy expenditure is higher, such as volley and frisbee. It is possible to make some constraints during the game or to make the game more difficult. For example: during the frisbee increase the distance between the participants or launch two or more discs simultaneously.

Final reflection and feedback

After the activity, it is essential to reflect on it. So, the facilitator will make the participants feel comfortable, give them water and have them in a calm position and ask these suggested questions:

- ▷ Would you do once again the amount of exercise you did, in order to use the amount of energy you usually use?
- ▷ Is all the energy that we use completely essential?
- ▷ Do you know some tips on how not to save energy and what renewable sources could be used?

Resources used

Can We Produce Energy by Exercising?, 2014-2022, Retrieved from:

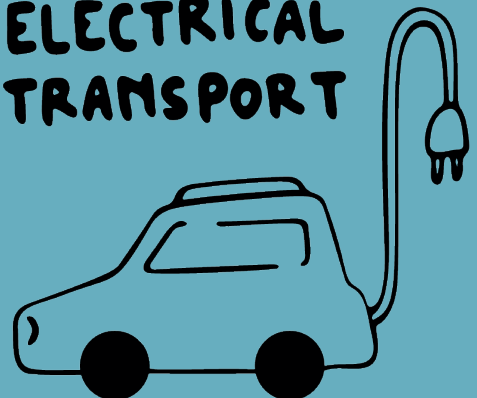
<https://www.wonderopolis.org/wonder/can-we-produce-energy-by-exercising>

Energy consumption and use by households, Eurostat, 2020, Retrieved from:

<https://ec.europa.eu/eurostat/web/products-eurostat-news/-/DDN-20200626-1>



ELECTRICAL TRANSPORT





CAS NA PLANICE

Impact on wildlife and behavior in the nature

Understanding the effects of human disturbance is critical for effective management and conservation of wildlife in an increasingly human-dominated world. The human population has exploded in recent decades with a subsequent acceleration in demands for resources.



Human activity along road networks can have an impact on wildlife behaviour that is often complex and varies among species and across both space and time. Indeed, it is not just the number of people but the type of human activity that is expected to cause shifts in behavioural responses of wildlife: for instance, previous studies suggested that certain hunting modalities and motorized recreational activities can have a stronger impact on wildlife than less intrusive disturbances. However, the actual effect of human disturbance on behaviour, population

dynamics and life history are still poorly documented. Measurements of the types and levels of human disturbance and their effects on wildlife are needed not only to guarantee functional ecosystems in currently human-dominated landscapes, but also to plan conservation policies for those remote areas where human exploitation of resources is expected.



Yoga workout in urban and natural area

Learning while being outside helps young people to understand and respect nature, the environment and the interdependence of humans, animals, plants and life cycles. During the eco-friendly sport activity participants will first practice yoga in an urban setting and later in nature.



Duration

2-3 hours

Aim / Learning outcomes:

- ▷ To train the senses to be more aware of the natural surrounding;
- ▷ To observe and appreciate nature and a local habitat;
- ▷ To gain a better understanding of the relationship between nature and humans;
- ▷ To learn to be more attentive towards the environment;
- ▷ To be aware of importance of nature preservation.



Materials needed

- ▷ Notepad for notes
- ▷ Pens, pencils or crayons
- ▷ Mat, scarf or blanket to practice yoga (optional)
- ▷ Appropriate clothing for weather (e.g. waterproof, warm clothing, sun hat, sun cream, insect repellent)

Recommendations for facilitators

- ▷ Plan and choose well in advance both spots in urban settings and natural settings. Make sure participants can transfer between them safely and preferably by walking.
- ▷ Apply the Leave no Trace policy with your group which means that everyone should leave the spot where yoga took place how they found it. This also applies to

picking anything that is living (for example, flowers or leaves) so make sure the group leaves them alone.

- ▷ There are lots of things to see outside in the natural setting, as long as you are quiet. Have a signal that lets the group know they need to be quiet to observe wildlife.



Description of the session:

Urban area

The meeting point of the session should start in an urban area such as an urban park or urban playground where yoga can be practiced. After reaching the urban area, the group should sit for 5 minutes and every participant should find a comfortable spot with enough space, they should not be able to touch anyone else while exercising yoga.

Theoretical part - preparation: (10')

Before the yoga workout participants are instructed to concentrate on the following aspects - SPOT.

Senses – Ask participants to use all their senses when practicing yoga poses.

Listen – have them close their eyes and concentrate on one sound – the birds, rain and traffic, distant chattering,...

See – ask them to open their eyes and look around at the smallest details: color of sky, patterns in tree trunks, movement of the leaves, colors.

Touch – ask them to close their eyes and feel the ground around them by gently touching, pick things up with fingers. Get them to think about what it feels like, is it cold, is it smooth, is it rough?

Smell – ask them to close their eyes and breathe deeply to inhale the scents around them

Perceptions – Ask them to think about what other participants might be able to sense during their exercise.

What things do participants see around them?

What things do participants hear around

them?

What things do participants smell around them?

Do they think the others might see different things?

Do they think the others might be hearing different things?

Do they think the others might smell different things?

Observations – Ask them to observe the place before and after exercise and notice the changes in the urban setting.

Practical part – yoga workout (20')

Participants will follow the instructor exercises and yoga poses for 20 minutes. Level of the exercise is adapted to the needs of the group.

Natural area

After the session in the urban area, the group walks towards your chosen natural setting for up to 45 minutes. If the walk is longer than 10 minutes, hand to a group about 10 cards with questions about their feelings during exercise and ask them to discuss in pairs while walking.

Question ideas on the cards:

Which sound did you hear the most during exercise?

How do you describe the setting for exercise with 3 words?

Can you name some animals you could spot during or after yoga?

How clean was the setting for the workout?

How do you describe smells?

After reaching the natural area group should sit for 5 minutes and every

participant should find a comfortable spot with enough space to practice yoga workout.

Theoretical part - preparation: (10´)

Preparation is the same as the one before the first yoga workout in an urban setting. Before the yoga workout participants are instructed to concentrate on the following aspects - SPOT.

Perceptions – Ask them to think about what other participants might be able to sense during their exercise. The questions are the same.

Observations – Ask them to observe the place before and after exercise and notice the changes in the natural setting

Tell – Reflection part - After yoga workout discuss and tell others about what they felt during the exercise

Practical part – yoga workout (20´)

Participants will follow the instructor exercises and yoga poses for 20 minutes. Level of the exercise is adapted to the needs of the group.

Final reflection and feedback

After a yoga workout in a natural/wildlife area, the group should discuss and share their feelings. If it is a small group they can discuss all together; if it is a large group split into smaller groups (4-6) so they can discuss amongst themselves – split them into the groups of people that do not usually work together. Participants can compare what they felt during the first session in an urban area and during their latest session in a natural area. This can help to show that their attitude towards nature and their ability to focus and concentrate can change in different environments.

Debriefing will be based on following questions:

How would you describe your activity?

How did you feel in an urban area compared to a natural area/wildlife?

How did you feel during yoga workout in the urban area?

How did you feel during yoga workout II. in the natural/wildlife area?

How can you connect this workshop with real life situations?

Resources used

Can We Produce Energy by Exercising?, 2014-2022, Retrieved from:

<https://www.wonderopolis.org/wonder/can-we-produce-energy-by-exercising>

Energy consumption and use by households, Eurostat, 2020, Retrieved from:

<https://ec.europa.eu/eurostat/web/products-eurostat-news/-/DDN-20200626-1>



DOSTU

SPORLAR

happy

ECO
-FRIENDLY
SPORTS

relax



Overconsumption and Circular Economy

Overconsumption is a human trend that challenges the natural system capacity to longer provide the necessary resources for a comfortable life on Earth. The uncontrolled exploitation of environmental resources is leading to degradation of landscapes and pollution.



A circular economy aims to maintain the value of products, materials and resources for as long as possible by returning them into the product cycle at the end of their use, while minimizing the generation of waste. The fewer products we discard, the less materials we extract, the better for our environment. This process starts at the very beginning of a product's lifecycle: smart product design and production processes can help save resources, avoid inefficient waste management and create new business opportunities ¹. The application of the

practice of circular economy could be the solution to overconsumption.

Sustainability is a key point in the management of natural resources and human products: the SDG 12 fosters a “responsible consumption and production” ². In the frame of this goal of the UN Agenda 2030, the European Commission adopted a new circular economy action plan³.



The circular gym

The participants will directly understand how to upcycle rough materials for sport purposes. The methodology will be non-formal education, so they will learn by designing, developing and implementing newly learnt concepts.



Duration

2 - 5 hours
(depending on time implemented to realize the sport and gym equipment)

Aim / Learning outcomes:

- ▷ To raise awareness about overconsumption;
- ▷ To know how to apply the concept of circular economy;
- ▷ To improve the upcycling skills and giving hints on how to link those to sport exercise, both indoor and outdoor;
- ▷ To boost creativity and critical thinking towards lifestyles.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



Materials needed

- ▷ Artificial: empty cans and bottles, broken balls, broomsticks, wheels, old clothes, old towels, heavy objects.
- ▷ Natural: sand, water, ground, trees.
- ▷ Other: tape, glue, scissors, cutters, elastics, ropes.

Recommendations for facilitators

- ▷ The aim is to use natural materials to create weights, sandbags and medicine balls. Also, some of the materials can be used in combination, and absolute respect, of the natural environment: for example, elastics and trees' branches, or ropes and trees' trunks.
- ▷ Advise the participants what clothes to wear in advance.
- ▷ Check on the rough materials at your disposal before starting the session, imagine what sport equipment those could be: not all participants have the same creativity!
- ▷ Check on the group members in order to adapt the sport exercise in case some participants have disabilities.
- ▷ Check the weather conditions and decide if the workshop should be held indoors or outdoors.
- ▷ Always try to have a second facilitator close to efficiently supervise the team work of participants.
- ▷ Suggest a ten-minutes-warm-up before starting with the sport exercise involving weights, sandbags and medicine-balls.

Description of the session:

Theoretical input (15')

Circular economy explanation: guide a brainstorming session about the topic. When several opinions are expressed and noted on a board, propose to participants to sum up the new concept. The brainstorming should be covering the following theoretical points:

Overconsumption
Circular economy
Sustainability

Team work (45')

Participants are divided into smaller groups (depending on the number of the whole group) and listen to the provided explanation of the upcycling workshop that follows. They will be assigned with a task to create a different sport equipment from objects and materials no more used for their previous purpose. Some examples of homemade gym equipment:

- ▷ Medicine ball: using an old ball, a small cut is made and filled with old clothes, sand or soil from the field, rice, etc. Then the cut of the ball is sealed with superglue.
- ▷ Unstable medicine ball: using an old ball, a small cut is made and filled with water. Then the cut of the ball is sealed with superglue.
- ▷ Small weights: you can use bottles, jugs, jars of cleaning products, and fill them with sand, earth, screws, etc.
- ▷ Unstable small weights: you can use bottles, jugs, cans of cleaning products, and fill them with water.
- ▷ Long weights: using a brush stick, mop, curtains, a bucket is tied to each

side of the stick with rope. The buckets are filled with heavy objects, sand or earth. You can also tie a carafe of water.

- ▷ Weighted vest: using an old backpack, filled with books and papers.
- ▷ Slider: with old clothes or fabric, use smooth floors to slide and do different exercises such as: leg curls, strides in various directions, planks, abdominals, chest openings.
- ▷ Weighted sleds: use an old plastic box or other resistant material, fill it with heavy objects such as books, magazines, weights. It can be dragged directly by pushing, or a rope can be attached to it and you can drag it by pulling.
- ▷ Abdominal wheel: using one wheel or several, a stick is placed through the central axis.
- ▷ Ropes: use old towels or clothes, use them between two people to pull one end each, suppose resistance to the exercise of the other person. For example: back rows, biceps, triceps, abs.
- ▷ Ladder: make a ladder out of old ropes and scraps of cloth to use for agility and lower body exercises.
- ▷ Cones: use cans, bottles, jars, carafes filled with water or earth to place them as cones in exercise circuits or delimit spaces.
- ▷ Bulgarian jacket: old pants can be filled with other old clothes and a heavy object in the hip area. The ends are closed with string or staples.
- ▷ Elastic bands: use old bicycle wheel tubes.

Joint sport exercise (60')

The whole group of participants should use just created gym equipment. Suggest some basic exercises and also give the chance to participants to contribute with

their sport experience in the facilitation and have them suggest some further exercises. For some of the suggested exercises any upcycling won't be needed e.g.:

- ▷ Take objects from nature such as large stones or tree trunks to perform resistance exercises.
- ▷ Use furniture such as chairs, drawers, sofas, tables, as a bench and lie on them to exercise.
- ▷ Use furniture such as chairs, drawers, tables, to do jumping exercises and lower body exercises.
- ▷ Free exercises with your own body weight and without materials: squats, jumps, push-ups, lunges, sit-ups, dips, shoulder presses.

Final reflection and feedback

Reflection: during the last 10 minutes of the third part session ask participants if they consider the application of the circular economy part of the solution for overconsumption.

Evaluation: to make reflection easier and less direct, ask the participants to show their stand regarding following sentences.

The answers could be placed on an imaginary line that has “yes, I agree” on one end, and “no, I disagree” on the other. This should give you an idea about how positive or negative their experience has been with the workshop's topic and the activity itself.

Some of the sentences could be:

- I want to include more environmentally sustainable habits into my daily routine..
- I do not care about the environment when I go shopping.
- I think I can actively contribute to waste reduction.
- Upcycling is a challenge, but the creative part makes it worth it.
- Going to a real gym is far more effective than building one.

Resources used

Circular economy – Overview, Eurostat, Retrieved from:

<https://ec.europa.eu/eurostat/web/circular-economy>

²The 17 Goals, United Nations, Sustainable Development, Retrieved from: <https://sdgs.un.org/goals>

Circular economy action plan, European Commission, 2020, Retrieved from: https://ec.europa.eu/environment/strategy/circular-economy-action-plan_it

Video:

5 Awesome To Make Homemade DUMBBELLS Kettlebells And Barbells Gym At Home, Retrieved from: <https://www.youtube.com/watch?v=yvc9JbvOsoQ>





Ecological footprint and how to decrease it

The ecological footprint is a method promoted by the Global Footprint Network to measure human demand on natural capital, i.e. the quantity of nature it takes to support people or an economy. It tracks this demand through an ecological accounting system.



The Ecological Footprint adds up all the productive areas for which a population, a person or a product competes. It measures the ecological assets that a given population or product requires to produce the natural resources it consumes (including plant-based food and fiber products, livestock and fish products, timber and other forest products, space for urban infrastructure) and to absorb its waste, especially carbon emissions. The Ecological Footprint tracks the use of productive surface areas. Typically these areas are: cropland, grazing land, fishing

grounds, built-up land, forest area, and carbon demand on land. On the supply side, a city, state or nation's biocapacity represents the productivity of its ecological assets (including cropland, grazing land, forest land, fishing grounds, and built-up land). These areas, especially if left unharvested, can also serve to absorb the waste we generate, especially our carbon emissions from burning fossil fuel.



Plogging and ecological footprint

Plogging is a combination of two words: jogging and Swedish phrase for pick up, 'plocka upp'. Started in Sweden by Erik Ahlström in 2016, plogging is an eco-friendly exercise through which people pick up trash while jogging or brisk walking as a way to clean up litter and also take care of their health.



Duration

3 hours

Aim / Learning outcomes:

- ▷ To lead to a positive self-perception and personal commitment to environmental issues, based on non-formal education;
- ▷ To learn how to compost, restore, invent various things from natural materials;
- ▷ To use natural resources efficiently but also sparingly;
- ▷ To show an interactive teaching method, decisions taken to improve the ecological situation, learning by doing method while plogging.

Materials needed

- ▷ Plastic bags and rubber gloves for garbage collection;
- ▷ Flipcharts;
- ▷ Colour pencils;
- ▷ Hygienic masks;
- ▷ Antibacterial hand spray.

Recommendations for facilitators

- ▷ People need to feel free to work and discover, interact and share with each other. Be honest and friendly, encourage them and use your sense of humor.
- ▷ Invite participants to give their opinion. Make sure there is a balance between the global and the local aspect so that people can see the direct focus of the topic on their own lives.



Description of the session:

Environmental education is a long process that aims to raise awareness on environmental issues, acquisition of knowledge, formation of attitudes, values and sense of responsibility for the rational use of natural resources, as well as promotion of actions in the direction of nature protection and sustainable development. To be effective, it must be holistic in nature, rely on an interdisciplinary approach, start as early as possible and be supported not only by school curricula but also by extracurricular activities, social and family events. In this way, the idea of the integrity of nature and at the same time of its diversity will be formed in the minds of children.

Theoretical input (30')

Welcome and explain to the participants what plogging is and what the main goal of the activity will be, purpose and the objective of the activity, suggestions and expectations from the participants.

Team work (60')

All participants will do plogging together. During the plogging, the participants can discuss the topic and share how they feel doing such activities. Garbage will be collected separately and then transported and disposed of in separate collection containers. After that participants will return to the trainer to continue with the next activity of the day.

Presentation of Teamwork: (60')

The main method during this activity will be discussion that will lead to learning from each other (sharing information,

sharing problems, good practices from their own experience), team decision making. Understanding of differences, solidarity, tolerance. Training, the results of which depend on the contribution of the participants should lead to acquiring awareness about the topic by sharing information.

Discussion on some of the following questions:

- ▷ “The land does not belong to us ... we borrowed it from our children...” - Do you agree with this statement? Why? Defend your position.
- ▷ “Some people believe that human activity harms the planet. Others are convinced that it makes the Earth a better place to live. What’s your opinion? Support it with the facts.
- ▷ How does human activity affect the Earth’s atmosphere?
- ▷ Why is population growth on earth such a serious problem? How does it affect the environment?
- ▷ Can a person’s efforts affect the state of the environment? How?
- ▷ Man is gradually depleting all natural resources. What alternatives are there for our heirs?

Final reflection and feedback

Cobweb (Spider web) (30')

For final feedback, draw a large cobweb on a flipchart, as its sectors represent the different areas that are evaluated, e.g. newly acquired knowledge, atmosphere, activities, food, etc. Each of the participants goes to the “Cobweb” and marks his own evaluation with their initials. A sign placed closer to the center is higher, and farther from it is a lower score. It will be then discussed.

Examples of cobweb: (see in bigger size in Annex IV.)

Resources used

Sandanski Eco-Campus. “Handbook with eco-activities for students from primary, primary and secondary education“. PROJECT: (“Establishment of ECOCAMPS – as a Way of Strengthening the Cross-border Environmental Education and Training”) <Greece-Bulgaria:2007-2013>; Acronym: ECOCAMPS;

Retrieved from: https://haskovo.riosv.com/files/PR%202018/Ekopomagalo_bg.pdf



Here are some easy actions you can take to re-connect to food and what it stands for:

- Adopt a healthier, more sustainable diet. ...
- Buy only what you need. ...
- Pick ugly fruit and vegetables. ...
- Store food wisely. ...
- Understand food labelling. ...
- Start small. ...
- Love your leftovers. ...
- Put your food waste to use.









**SPORT &
PHYSICAL
ACTIVITIES**

**FOCUSED ON
ENVIRONMENTAL
ACTIVISM AND
INDIVIDUAL
ACTION**

Bike trip and Eco-washing powder workshop

The National Academy of Sciences, an American non-profit organisation made up of distinguished members of various scientific communities, claims that 95% of the chemicals used in synthetic fragrances are made from kerosene.



Duration

2 - 5 hours
(depending on distance of the bike trip)

Aim / Learning outcomes:

- ▷ To raise awareness about harmfulness of cleaning products;
- ▷ To learn how to produce own ecological washing powder;
- ▷ To encourage using and making ecological products in our homes or in our cosmetics;
- ▷ To promote physical activity as well as environmental education.



Recommendations for facilitators

- ▷ People need to feel free to work and discover, interact and share with each other. Be honest and friendly, encourage them and use your sense of humor.
- ▷ Invite participants to give their opinion. Make sure there is a balance between the global and the local aspect so that people can see the direct focus of the topic on their own lives.

Materials needed

FOR DIY WORKSHOP ▷

(for 2kg of washing powder, you can split it afterwards to participants based on the amount of them – e.g. 200g for each of them)

▷ Solid soap/soap flakes: olive, coconut or even animal tallow or bile soap, either grated-soap flakes or you can grate it yourself. 200g

▷ Washing soda: used to soften the water. But don't confuse washing soda and baking soda, they have completely different chemical formula. 1500g

▷ Sodium percarbonate: used to bleach laundry and also as a disinfectant, effective up to over 60 degrees. It is often added to dark laundry if we want to disinfect it. (Risk of fading unstable colors.) 500g

▷ TAED: is added to percarbonate to activate it at temperatures below 60 degrees. 25g

FOR SPORT ACTIVITY (if bike trip) – bikes, helmet

Description of the session:

1. Bike trip, hike or other sport activity.

You can select a place to meet with other participants and go together to a DIY workshop. It can be a youth or ecological center.

2. Discussion / Introductory questions

Why should we care about the washing powder we use?

- we wear residue from washing powder or fabric softener or washing gel all day on our clothes and they could irritate our skin;

- its composition also affects the composition of the waste water;

- the production process of these products affects also the environment;

- it has an impact on health (explained in more detail below).

3. Theoretical preparation of participants:

Theoretical input about harmfulness of washing powders and why is good to produce our own:

Which substances irritate our skin the most:

- ▷Tensides (e.g. alkylbenzenesulfonates, diethanolamine): produced synthetically from petrochemical feedstocks (tar, crude oil) have a negative impact not only on health but also on the environment. Tensides ensure the foaming power of detergents and penetrate the fabric to remove dirt and stains. They are strong chemicals difficult to degrade in nature. Even after washing, unnoticeable residues of tensides remain on clothes and linen and penetrate through the skin into the body. Of course most of us do not feel anything or even know anything about

this process, at least for the moment.

Our bodies could deal with a lot of things very well, but imagine how the chemicals just keep piling up. And then one day you can easily find out you have some kind of health problem. People who have sensitive skin, eczema or children are much more susceptible to these negative effects of residual tensides from washing powders.

- ▷Phosphates: soften water and are highly ecotoxic. The EU has significantly reduced their use by regulations. A large number of detergents on the market contain phosphates or phosphorus, which causes water pollution. Therefore in some countries, such as Austria, phosphate detergents are already banned.

- ▷Optical brighteners/bleaches: substances that absorb UV radiation and emit blue light, giving the impression of whiter laundry. This is essentially an optical illusion. The bleach stays on the surface of the laundry and the refraction of light on these bleach particles makes the laundry look whiter. However, these substances have been proven to cause skin irritation and are toxic to the environment.

- Preservatives, Chlorine, Synthetic perfumes - highly irritating substances, toxic not only to the human body but also to the environment.

- ▷ Preservatives, Chlorine, Synthetic perfumes - highly irritating substances, toxic not only to the human body but also to the environment.

Laundry detergents also contain other substances to make their consistency mealy, to increase their volume, they contain perfumes, or dyes and fragrances to make the laundry smell good.

How can washing powders harm our

health?

The National Academy of Sciences, an American non-profit organisation made up of distinguished members of various scientific communities, claims that 95% of the chemicals used in synthetic fragrances are made from kerosene. These include benzene derivatives, aldehydes, toluene and many other toxic chemicals responsible for cancer and allergic reactions. Despite such research and proven negative effects, such dangerous substances still appear in the composition of drugstore products.

Today, chemicals hiding under the names 'fragrance' and 'perfume' are responsible for a whole range of health problems and also have a negative impact on the environment. People with more sensitive skin often experience skin irritation, often unaware that their favorite fabric softener, which they pour into the washing machine, is to blame. Other health complications caused by artificial fragrances include respiratory problems, hormone disruption and cancer risk.

Teamwork - Production of own washing powder

Prepare all the "raw materials" for the production of detergent. First, grate the soap on a fine grater. Weigh the ingredients for the detergent product according to the recommended doses (see below) and mix all the ingredients together thoroughly. The washing powder is ready. Its only scent is from the soap, so we can always add a few drops of essential oil to the wash.

Final reflection and feedback

Reflection questions at the end of the event might include:

How did you like the event?

Do you consider event and knowledge you got as useful?

Do you plan to produce your own washing powder at home?

Would you like to attend some other similar events in the future?

Resources used

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Hike and Bees wrap workshop

Beeswax is one of the natural products of bees. Beeswax is a complex product. It is secreted in liquid form by wax glands on the belly of bees. It then solidifies in the air, while the bees further model it with their jaws and build combs. In addition, they add pollen and propolis to the wax - another of their own products.



Duration

2 - 5 hours
(depending on sport activity)

Aim / Learning outcomes:

- ▷ To raise awareness about importance of bees, wax and usage of their products in our daily lives,
- ▷ To learn how to make own bees wraps,
- ▷ To encourage using and making ecological products in our homes or in our cosmetics,
- ▷ To promote physical activity as well as environmental education.

Materials needed

- ▷ Cotton cloth (or other natural fabric, old cotton sheets work best), endlover scissors, beeswax/ beeswax sheet Honey Bee nest, iron, baking paper.



Recommendations for facilitators

- ▷ You can connect the workshop with other sport activities, not only hiking, or visiting a bee farm.



Description of the session:

Session is divided into 4 parts:

1. Hike or other sport activity. You can select a place to meet with other participants and go together to a DIY workshop. It can be youth, ecological center.

2. Discussion / Introductory questions

Do you know what beeswax is and how it is made?

Beeswax is one of the natural products of bees. Beeswax is a complex product. It is secreted in liquid form by wax glands on the belly of bees. It then solidifies in the air, while the bees further model it with their jaws and build combs. In addition, they add pollen and propolis to the wax - another of their own products.

What is its use?

Beeswax plays the role of a building material in the hive, which the bees produce with their own bodies. In ancient Egypt, it was used to embalm mummies and preserve goods. However, it has far more practical uses. It is added to soaps or other cosmetic preparations. It is suitable for the treatment of wooden furniture. The sheets can be quickly and easily made into candles that do not give off smelly smoke. It is extremely resistant to acids and digestive juices. It is insoluble in both water and cold alcohol, which is why around 1900 people started using it as beeswax napkins for food storage or to cover containers.

ü

What is the difference between artificial and natural wax?

Many people may think of wax as a traditional candle at first. However, there is a big difference between artificial and natural wax. While artificial wax is made from petroleum derivatives, natural wax is produced by insects. Beeswax - produced by the honey bee - is the most commonly used.

3. Theoretical input about Bee Wrap usage

It can be used especially in the kitchen, when we need to cover a bowl, wrap cheese or other solid food. We can also wrap a snack for hiking, or cut onions and much more. A wax napkin protects food from light, moisture and keeps it fresher longer. By using a waxed food wrapper you will save money, not produce unnecessary plastic waste and of course not waste food.

Why use Bee Wraps?

- it is environmentally friendly,
- it is reusable,
- compostable,
- easy to wash - just wipe or rinse with lukewarm water,
- the food stays fresh without smothering, the wax layer breathes gently,
- suitable for packaging all foods such as baked goods, vegetables, cheeses,
- has a pleasant scent.

4. Making our own Bee Wraps

Prepare a suitable fabric (depending on the size of the bee wrapper), which we cut with endloving scissors (the ones with teeth). We bought a pre-made size of already trimmed fabric. Then we grate the beeswax on the thicker side of the shavings grater.

If we are using beeswax sheet Honey Bee nest we don't have to grate it, we just break it into pieces. Lay the cloth on a cardboard (so as not to damage the table surface) and spread the shavings/ pieces of beeswax sheet Honey Bee nest evenly over it.

We try to make sure each piece is covered and don't put a large amount of shavings on one piece. Even distribution is important. Then cover the fabric with baking paper and iron the entire surface of the fabric. Once the baking paper is uncovered, see where you still need to add shavings- places where there is no wax will be lighter, or the fabric where there is wax will be yellowed. Add a few shavings to the spots without wax and iron through the paper again. Finally, leave to dry and use. The restoration of the Bees Wrap is done in the same way.

Final reflection and feedback

How did you like the event?

Do you consider event and knowledge you got as useful?

Do you plan to produce your own Bee Wraps at home?

Would you like to attend some other similar events in the future?

Resources used

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Sport and Food waste workshop

A third of all food produced ends up in the trash. It is as if we left the supermarket with three bags of food and threw one of them to the trash outside the house. Not only are we wasting our money, but we are wasting resources - land, water, electricity and people's labor. This, too, has the unnecessary effect of accelerating global warming.



Duration

2 - 5 hours
(depending on the sport activity chosen)

Aim / Learning outcomes:

- ▷ To raise awareness about importance of food waste and its impact on environment;
- ▷ To learn how to reduce kitchen waste by proper shopping and storing;
- ▷ To simulate or realize cooking with leftovers in the kitchen;
- ▷ To promote some not very popular sports, as well as general physical activity and environmental education.

Materials needed

- ▷ Sport equipment depending on the sport practiced.
- ▷ Food in case you will do "real" cooking.

Recommendations for facilitators

- ▷ You could also switch the order of the event, for example – to practice sport before eco-workshop.
- ▷ You could invite some guest who is more familiar with this topic. (for example, in a Slovak event, we had a person working at the municipality responsible for planning and putting in practice kitchen waste bins).

SAVE EARTH!

Description of the session:

Session is divided into 4 parts:

1. Theoretical input and discussion.

Introductory questions:

Do you know how many kilos of kitchen waste a person throws out per year approximately?

▷ in EU, around 173kg per person

Do you know how many % of all food ends up in the trash worldwide?

▷ A third of all food produced ends up in the trash. It is as if we left the supermarket with three bags of food and threw one of them to the trash outside the house. Not only are we wasting our money, but we are wasting resources - land, water, electricity and people's labor. This, too, has the unnecessary effect of accelerating global warming. Imagine if food waste was a country, it would be the third largest emitter of greenhouse gasses, after China and the US. That's why one of the UN's sustainable development goals is to halve food waste by 2030.

What are the main reasons for it in your opinion?

- we buy more food than we can consume and we don't know how to store it properly.

- because it is cheap and available. If a person starts cultivating sourdough starter to bake bread, or gets up at five o'clock to pollinate tomatoes in a foil pot, they wouldn't throw their food away so easily.

- A lot of people don't know the difference between the use-by date and the best-before date.

-2. Make a change Activity

1st part: Show participants pictures with various food stored (Annex I.) and ask them to guess which answer is right. You can discuss after each question/each set of pictures the answer or at the end. Right answers are part of the Annex.

2nd part: Ask participants to make a list of tips on how people can reduce their kitchen waste. Some tips available for facilitator in case it is needed to support the process

▷ Always buy only as much as you consume.

▷ Don't shop hungry and make a list of what you need in advance.

▷ Store food properly, especially fruit and vegetables, so that they last as long as possible.

▷ Distinguish between use-by date and best before date. The best before date is the date until which the food should remain good quality. It is most commonly found on dried, frozen, canned and other durable foods. You can eat food after the best before date if you have stored it as stated on the packaging and the packaging is not damaged. The use-by date indicates how long it is safe to eat the food. It is usually shown on fresh foods and on non-durable foods. You should no longer eat food after the use-by date.

▷ Get creative with your cooking to make use of all the leftovers and scraps.

▷ What you can't eat, save for tomorrow, freeze or donate. At least you will get to know your neighbours and maybe start your community.

▷ If you have a large surplus in your garden in season, you can boil, freeze or dry it. Or you can sell or donate them - e.g. put a box outside your house with a notice for passers-by/neighbours to take them.

3. Sport activity. You can select a sport that is not very popular or famous among the public in order to encourage them to practice some new sport (for example – during one of our events, we practiced Yoga on a Paddleboard). You can also continue discussion while practicing sport, if it is not too demanding.

4. Practical part – cooking or simulating cooking

If you have the possibility/premises where to cook, you can prepare left-overs of food, divide participants in couples or smaller groups and ask them to prepare some food/recipe from it. In case you don't have premises and opportunity to do it in life, you can just provide participants with a list of potential left-overs in the fridge and then ask them to plan in couples or smaller groups what they could prepare from it. Afterwards, ask them to present their ideas to everybody. Aim of the simulation is to realize how many possibilities we have with even very little food in the fridge.

The list of the potential left-overs: 150g cooked rice, gouda, 4 very ripe tomatoes, half of the box creamcheese, 3 eggs, half lemon, half onion, opened sour cream, half cucumber, 50g minced meat.

Final reflection and feedback

Reflection questions at the end of the event might include:

How did you like the event?

Do you consider event and knowledge you got as useful?

Do you plan to produce your own washing powder at home?

Would you like to attend some other similar events in the future?

Resources used

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Eco-friendly Hike, Quiz and how to be more eco-friendly

Based on the Eurostat, each EU citizen generated 475kg of waste, on average, in 2015 - meaning that every one of us generated about 1.3 kg of waste per day. Is that a little or a lot? Is there any potential to reduce or change the manner of our consumption and influence the amount of waste generated?



Duration

2 – 5 hours
(depending on the length of the hike)

Aim / Learning outcomes:

- ▷ To raise awareness about how everybody can be more eco-friendly in their daily lives;
- ▷ To learn how to properly recycle and separate waste;
- ▷ To promote physical activity and environmental education.



Materials needed

- ▷ Trash bags, gloves, list of trash

Recommendations for facilitators

- ▷ Make sure to double-check how the waste is separated in the city/ country where the workshop is organized. For example, in Bratislava, Slovakia, we should put cans in the plastic trash bins, and products from aluminum are in recycling centers separated from plastic.



THE GLOBAL GOALS

Description of the session:

Session is divided into 4 parts:

1. Eco-Quiz

When meeting with participants, you can start with an eco-quiz that will allow participants to test their knowledge, discuss the eco-topics and win some prize (e.g. reusable bottle). Questions for the quiz can be found in Annex VI.

2. Hike

During the hike, you can ask participants to collect trash that you find on the way (prepare gloves, trash bags before).

3. Waste Separation

At the end or in the middle of the hike, you can ask them to do a competition about how to separate collected trash. In case there will be not enough or diversity of the trash during the hike found, you can just divide participants in the group and give them names of various trash and ask them to separate them in different columns.

The trash can be: shredded documents, food foil, tuna can, cardboard, stuffed animal, toothpaste wrapper, shampoo wrapper, egg carton, used sponge, coffee packaging, CocaCola can, shoe box, tea bag, mirror, polystyrene, paper bag, milk carton, nappies, baking paper, plastic bag, yogurt cup, porcelain, magazine, wine bottle and columns to divide trash depends on the country, city how trash is separated, but at least should be: paper, plastic, glass and mixed waste. For the team that did not make any mistake, you can again prepare some small winning eco price.

4a. How to be more ECO-FRIENDLY

Ask participants first to think how each person can be more eco-friendly. Collect their ideas and write them on flipchart paper. Few ideas in case participants don't have many:

- ▷ I separate trash.
- ▷ I use public transport, bikes, scooter or other eco-friendly ways of transport whenever possible.
- ▷ I use my own reusable bottle for water and don't buy water in plastic bottles.
- ▷ I use my own bag when shopping and don't take plastic bags from supermarkets.
- ▷ I use reusable produce bags for buying vegetables and fruits and don't take small plastic bags for it.
- ▷ I buy food from local farmers when possible.
- ▷ I eat locally grown vegetables and fruits when possible.
- ▷ I try to lower consumption of meat.
- ▷ I turn off lights and electrical products when not using them.
- ▷ I am conscious about clothes shopping, prefer sustainable clothing or second-hand when possible.

Afterwards, ask them to stand in the line and after saying each phrase / e.g. I separate trash, ask those who do separate trash to jump in front. Continue with at least 10-15 phrases. At the end, ask them to look around when they stand – those who are most in front have probably the most eco-friendly and sustainable way of living. You can open a short discussion, why it is needed to change it, why each of us should do something... Then, invite participants to make a promise to take simple, practical actions to save the environment. For each promise, they can jump one more step in front.

4b. How can we encourage others to be more eco-friendly

You can finalize the session while brainstorming about the need to encourage others to have a more sustainable lifestyle. Few ideas to start discussion with:

▷ Start Online campaigns that raise awareness and inform how important is to reduce and separate trash and encourage people to clean their areas (recommended with help of influencers or celebrities);

▷ Organize interactive events, non-formal education games, eco-friendly sport events;

▷ Organize swap event (where people bring what they don't need and can take in return what need) or repair event (where people can repair the diverse things like clothes, furniture, electrical products, bicycles, toys etc.);

- Create videos, podcasts informing about importance of climate change and needs;

▷ Produce promoting leaflets, t-shirts, bags encouraging more eco-friendly lifestyle (but use eco-friendly materials);

- Create mobile apps (for example: connecting households with waste pickers who come to pick up recyclables);

▷ Various installations, statues have been set up around the cities to encourage people to change their waste-related habits or „voting“ machines where people should vote with their cigarette butt or plastic cup in some questions (e.g. if they prefer to build new playground or park in the city);

▷ Promote, visit or create zero waste shops, second hands, repair centers, library of things....

Final reflection and feedback

Did you learn something from the quiz?

Are you surprised by the amount of trash we found on the hike?

Do you think we could all collect trash while hiking?

Will you change your daily habits to be more eco-friendly?

Resources used

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DON'T POLLUTE



Cash Trash

Waste collection is a fundamental element of a municipal solid waste management system. The main goal of a waste collection strategy is to collect in a timely and economical manner, as much correctly source separate waste as possible, in order to ease the subsequent waste sorting and/or treatment stage with the aim to maximise re-use and recycling.



Duration

30 min

Aim / Learning outcomes:

- ▷ To understand the benefits on the environment and health through recycling;
- ▷ To fight waste and overuse of resources;
- ▷ To promote healthy living habits.

Materials needed

- ▷ Color cards;
- ▷ Waste;
- ▷ Ecopoint;
- ▷ Sting for pick the trash;
- ▷ Delimiter tapes
- ▷ Leaflet how to separate trash (example bellow)

THINK GREEN



Recommendations for facilitators

- ▷ To raise the awareness of the participants about the topic, it could definitely count on a bigger variety of waste to be collected and sorted.

Make sure you verify how trash is recycled in your country/city before implementing the activity (there are some differences).

REDUCE
REUSE
RECYCLE

Description of the session:

1. Description of the scenario, instructions and rules of the activity (10’):

According to the number of participants in the activity create several small groups. Each team is given four cards referring to the waste containers, respecting the color code: blue, yellow, green and black, the latter of which indicates the word “Others”.

Prepare the

race circuit in advance, before starting the activity. At the finish line, it is necessary to have four cards equal to those mentioned above. The waste must be shuffled and distributed evenly among the teams.

2. Teamwork (10’):

Give the participants a starting signal and after one member of each team must pick up a waste, make the race circuit and place the waste in the respective ecopoint. The next participant of each team can only leave the starting line when the previous one returns. The first team to finish earns 5 extra points and each waste placed in the right recycling bin is worth 2

points.

3. Checking out the results and debriefing (10’):

At the end, ask the participants the following questions for the discussion:

-Which garbage container was the most full?

-Where did they put the waste that is in the place of the “others”?

-How can we reduce the amount of waste we have at home?

Final reflection and feedback

At the end of the activity organize a group reflection to let the participants understand more about their learning outcomes and stimulate more ideas in the participants. Examples of questions to be asked:

What does recycling mean for you?

What does the environment mean to you?

Is it worth recycling?



The most commonly used material for packaging is plastic. Plastic is easy to make, but comes with a slew of environmental consequences, like long decomposition rates and damage to natural ecosystems. A great alternative to plastic packaging are metal containers made of tin and aluminum. These containers remove a lot of the issues created by plastic packaging. When metal containers are used for food and other perishables they often still require a plastic film, seal, or coating to completely protect the contents from coming into contact with air. In recent years biodegradable non-plastic packaging and films have begun to immerge as an alternative to standard plastic packaging. Biodegradable packaging is produced using biopolymers, which are molecules often found in living organisms, like cellulose and proteins. This means they can be safely consumed, degrade quickly, and often be created from waste plant products



Zero Waste





Orientation in Forest

Sport occupies a special place in modern life, with millions of people around the world watching or participating in their favorite games. But ironically, despite its ability to entertain and promote health, sport can also degrade the environment. To remedy this, professional teams and colleges across the country are turning sport into a positive force for environmental change by adopting sustainable practices.



Duration

30 min

Aim / Learning outcomes:

- ▷ To understand the benefits on the environment and health through recycling;
- ▷ To fight waste and overuse of resources;
- ▷ To promote healthy living habits.

Materials needed

- ▷ Strings, bow and arrow, target, demijohn



Recommendations for facilitators

- ▷ You can add more challenges to make the games more dynamic.

DON'T LITTER



Description of the session:

Jumping and Collecting Bags

Explain the rules of the game to the participants. The main objective of this game is to cover the indicated distance during the shortest possible time. Players could move only if they held the bag with both hands. The competitor who leaves the bag during the course will be disqualified. If the competition is for teams, the team will also be disqualified. In the case of the team competition, the team that obtains the highest number of points, resulting from the sum of its players' points, will be the winner.

At the end of the game, participants should use the bags to collect the waste they found in the area, thus contributing to cleaning up the place where the activity took place.

Bottle and Water Balance

Split the group into teams, explaining to them that there is a demijohn placed on the playing field, tied by several ropes. The objective of the game is to transport the gallon from point A to point B as a team, using the ropes. The team that manages to make the transport in the shortest possible time is the winner.

Another goal of the activity is for the team to try not to drop off the water at all from the barrel: the team who saves more water gets as well some extra points. At

the end of the game, participants will use that water to irrigate the flowers, trees and wash their hands. therefore enhance their understanding of the importance of water and need to save it.

Between the Strings and Ecosystem

Explain to the participants that this is a game played on a giant spider's web (it can be made with ropes, sisal or even large strips of braided cloth), creating different teams of five to ten participants. Before starting the game, between two trees a web is built with ropes.

These are the main rules:

- Only one person should pass through each hole in the web;
- Each member must go through it, with or without help;
- Everyone must pass to the other side of the web;



- Each cell (web holes) can be used only once;
- Everyone who passes through a hole must mark it;
- The team may decide to start over, clearing all the holes in the web, and accumulate time until it succeeds.

Afterwards, ask participants to sit in the circle and discuss with them about web of life. The game they played reminds our ecosystem - the same as you relied each-others, all the living things in an ecosystem depend on each-others. Therefore we have to be attentive towards everything we do and can have impact on environment and nature.

Final reflection and feedback

At the end of the activity organize a group reflection to let the participants understand more about their learning outcomes and stimulate more ideas in the participants. Examples of questions to be asked:

What does recycling mean for you?

What does the environment mean to you?

Is it worth recycling?



7 Tips and Tricks to Simplify Recycling

Don't be a "Wish-cycler" ...

Don't Recycle Anything Smaller Than a Credit Card. ...

Keep Things Loose! ...

Empty, Clean and Dry! ...

Here's What You Can and Can't Recycle.

...

Give Your Recycling Bin the Sniff Test. ...

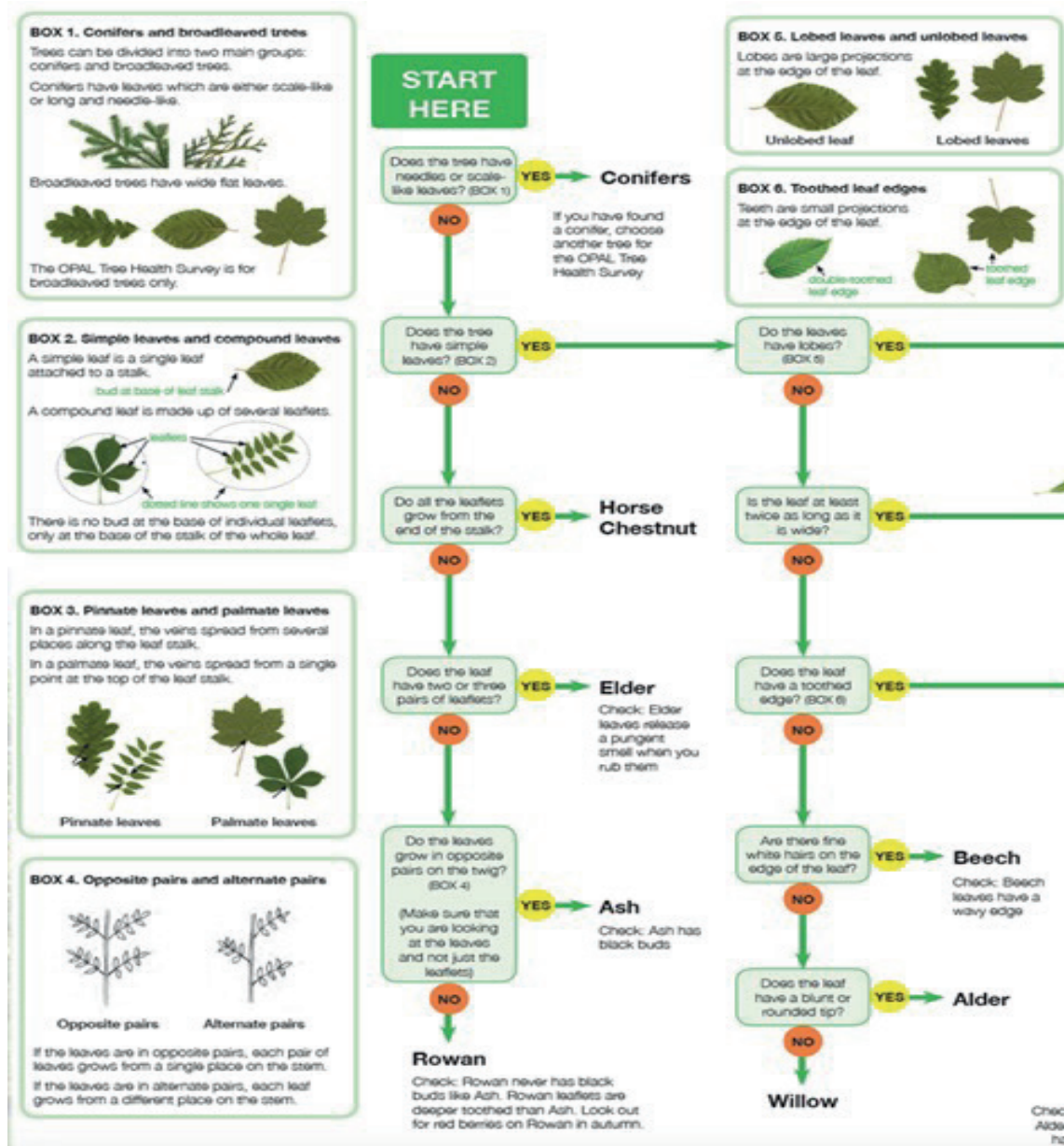
Reduce, Reuse and Then Recycle!

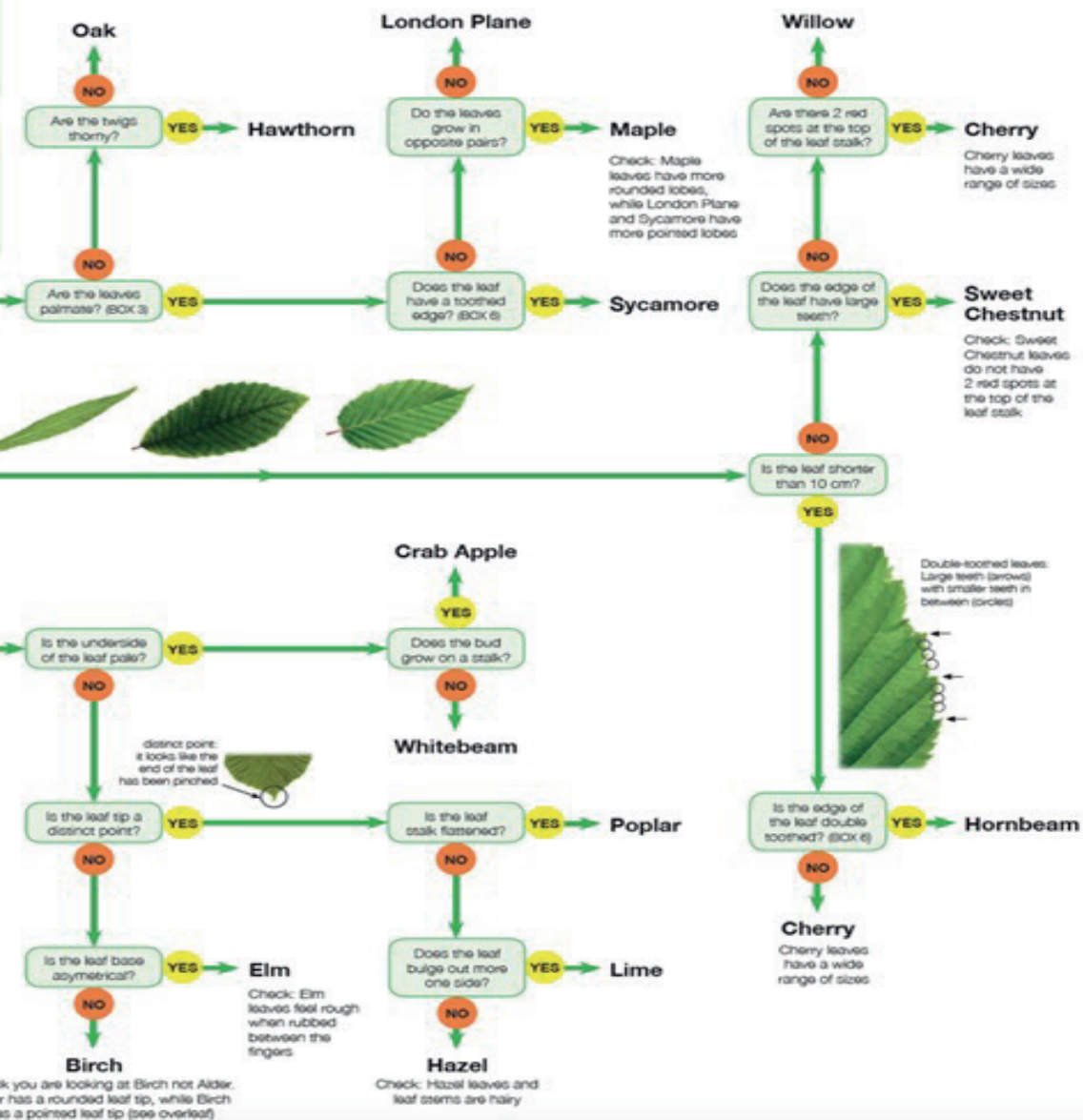




THE
PL

Annex I. Identification sheets







side veins join the main vein at different points

Look for acorns on the tree and on the ground under the tree.

The leaves are simple and pinnate: side veins join the main vein at different points.



Oak

Quercus species



veins fan out from the top of the leaf stalk

Fat, often sticky buds paired on twigs. Look for corkers in the summer and autumn.

The leaves are compound and palmate: the veins fan out from a single point at the top of the leaf stalk.



Horse Chestnut

Aesculus hippocastanum

Sweet Chestnut



Castanea sativa

Sycamore



Acer pseudoplatanus



Elder

Sambucus nigra

Maple



Acer species



The leaves are compound and pinnate: the veins join the leaf stalk at different points.

Paired leaflets with untoothed edges on a green stalk.

Large black buds on the twigs.

Look for bunches of single-winged 'keys' on the tree from late summer.



Ash

Fraxinus excelsior



The leaves are compound and pinnate: the veins join the leaf stalk at different points.

Paired leaflets with toothed edges on a red stalk.

Pale buds on the twigs. Look for red berries in the autumn.



Rowan

Sorbus aucuparia

Whitebeam



Sorbus aria

Crab Apple



Malus sylvestris

Birch



Betula species

Elm



Ulmus species



Platanus



London Plane

Platanus x acerifolia



Hornbeam

Carpinus betulus



Alder

Alnus species



Crataegus



Hawthorn

Crataegus monogyna



Beech

Fagus sylvatica



Hazel

Corylus avellana



Tilia



Lime

Tilia species



Cherry

Prunus species



Conifers can have needles (above) or scale-like leaves (below). If you have found a conifer, choose another tree for the Tree Health Survey.



Salix



Willow

Salix species



Poplar

Populus species



Conifers

Annex II. Nest Building

Wild birds are always in need of more consistent nesting locations because there aren't enough natural hollows in dead trees or old buildings to go around. Many cavity nesting species seek out these holes, and will readily nest if it's in the right location.

In this activity we are going to think like a bird and create our own bird's nest using natural materials. Grab your newspaper, small bowl and tape and head out into the great outdoors.

Find a space outside where you can forage for natural materials such as leaves, grasses, pine needles, animal feathers, or even mud if you want to try your hand at building a swallow nest.

Next, take your sheet of newspaper, (it can be a whole or half sheet) and shape it around your small bowl. You will be taking the bowl out before taping up the base of your nest.

Now, take a few pieces of tape and tape around the outside of your newspaper to hold it together. Take out the bowl you were using to shape your nest and set it aside.

You now have the base for your bird nest. Next comes the fun part, collecting natural materials to make your nest warm and cozy.

Practical tips for facilitators:

Step by step instruction videos on easy, DIY birdhouse assemble

*Please note: 1 inch = 2,54 cm;
1 foot = 30,5 cm*

If possible, coat your birdhouse in linseed oil and let it dry. It makes the birdhouse more resistant to weather and bugs.

1. <https://www.youtube.com/watch?v=j0werPvrrPI>

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

Pine Needles, leaves, grass, moss, are all great additions to your birds' nest.

Once you have made your nest nice and cozy, you can place it in a tree outdoors or bring it inside for some imaginative indoor play.





Annex III. European common herbs

Plantago lanceolata

Ribwort Plantain (white man's foot)

Spitzwegerich

The tough fibers of the leaves make them difficult to digest. The young tender leaves of spring are the best to eat; use in salads or as you would use spinach. The leaves that have become more fibrous with age need longer cooking; they are best chopped finely or pureed and cooked in a cream sauce. Eating ribwort is said to have a healing effect on ulcers. Cooked plantain leaves have been used as a direct poultice on boils. Plantain and poppy heads can be mixed together and applied on wounds as a pain reliever. Plantain is a vulnerability (promotes healing) and is noted for its styptic, antiseptic, and astringent qualities. Shoshoni people used the cooked leaves as a poultice for wounds. Early American colonists used plantain on insect and venomous reptile bites and also used the seeds for expelling worms. Boerhaave, an 18th-century European botanist, recommended binding

Simply reach down and pull the leaves by the stalks to detach them from the base of the plant. It's that easy! The tender leaves should come away with little resistance.

plantain leaves to sore and tired feet to relieve the fatigue of long hikes. Chewing the root is reported to stop toothaches. The green seeds boiled in milk or a tea of the dried leaves will stop diarrhea.



Urtica dioica

Common Nettle, Stinging nettle

Große Brennnessel

The nettle has sharp hairs on its leaves. These hairs contain chemicals, such as formic acid and histamine, that can irritate the skin and cause stinging, itching, and redness. Nettles lose their sting when they are either cooked or dried, and are so incredibly tasty and nutritious, either as tea or in soup. Nettle may help flush harmful bacteria from the urinary tract. This can benefit people who have urinary conditions, such as benign prostatic hyperplasia (BPH). BPH causes an enlarged prostate gland in men. This can cause pain or other problems urinating. Nettle may also help support any medications you're taking for infections or conditions related to the urinary tract. Nettle has historically been used to treat pain and sore muscles, especially related to arthritis. The Arthritis Foundation suggests that nettle tea may also reduce the inflammation

The best time to harvest them is while they're still a small, no more than a foot tall, because that's when the leaves are the most tender. The leaves are best harvested while they're still young and before the plant starts flowering

and pain association with osteoarthritis. Stinging nettle is a popular treatment for seasonal allergies. Scientists are not yet sure how it has this effect, though some suggest it is because the nettle can reduce allergy-related inflammation in the body.



Achillea Millefolium
Yarrow
Gemeine Schafgarbe

Common yarrow grows wild in fields, meadows, and dry wastelands, and often alongside country roads. This is the herb whose leaves the Greek hero Achilles reputedly bound on his soldiers' battle wounds to stop the bleeding during the Trojan War, whose stripped stalks the Chinese tossed to divine the future, whose tops the Swedes used to flavor their beer. For centuries, healers in various cultures have recommended it as a cure for dozens of ailments. Modern science has confirmed at least some of common yarrow's medicinal uses. Of more than forty constituents isolated from it, azulene, a hydrocarbon, is anti-inflammatory, and achilleine, an alkaloid, improves blood circulation. The tops are harvested when in flower (May to September) for use as a digestive or tonic. One study, conducted by researchers from the Department of Pharmacology and Toxicology at the University

Simply reach down and pull the leaves by the stalks to detach them from the base of the plant. It's that easy! The tender leaves should come away with little resistance.

of Vienna, demonstrated that its antispasmodic effects may help to soothe symptoms of irritable bowel syndrome. There are multiple species in the *Achillea* genus, some wild natives, and several stunning ornamental cultivars featuring a wide range of colors including pale pink, purple, red, white, and yellow.



Matricaria Chamomilla
Chamomile
Echte Kamille

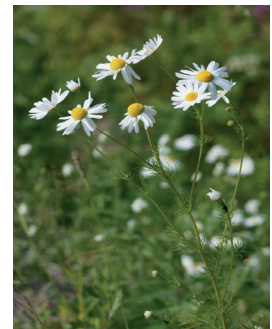
Common yarrow grows wild in fields, meadows, Chamomile is one of the most ancient medicinal herbs known to mankind. The dried flowers of chamomile contain many terpenoids and flavonoids contributing to its medicinal properties.

Gather the flowers on a sunny day after the morning dew has dried. Harvest blossoms by snipping them off when they are fully open.

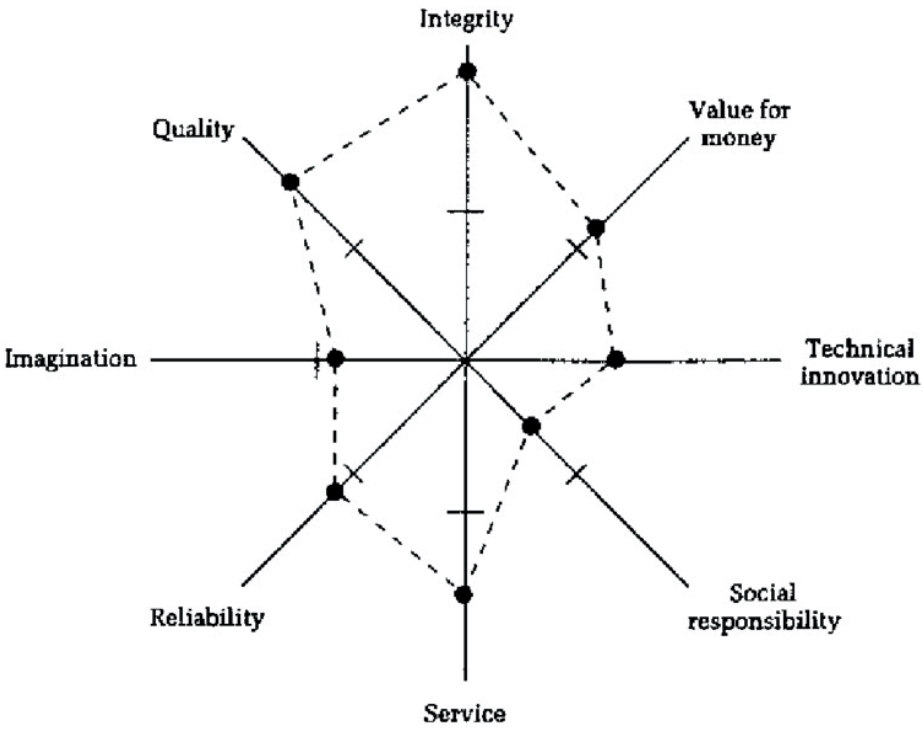
Chamomile preparations are commonly used for many human ailments such as hay fever, inflammation, muscle spasms, menstrual disorders, insomnia, ulcers, wounds, gastrointestinal disorders, rheumatic pain, and hemorrhoids. Essential oils of chamomile are used extensively in cosmetics and aromatherapy.

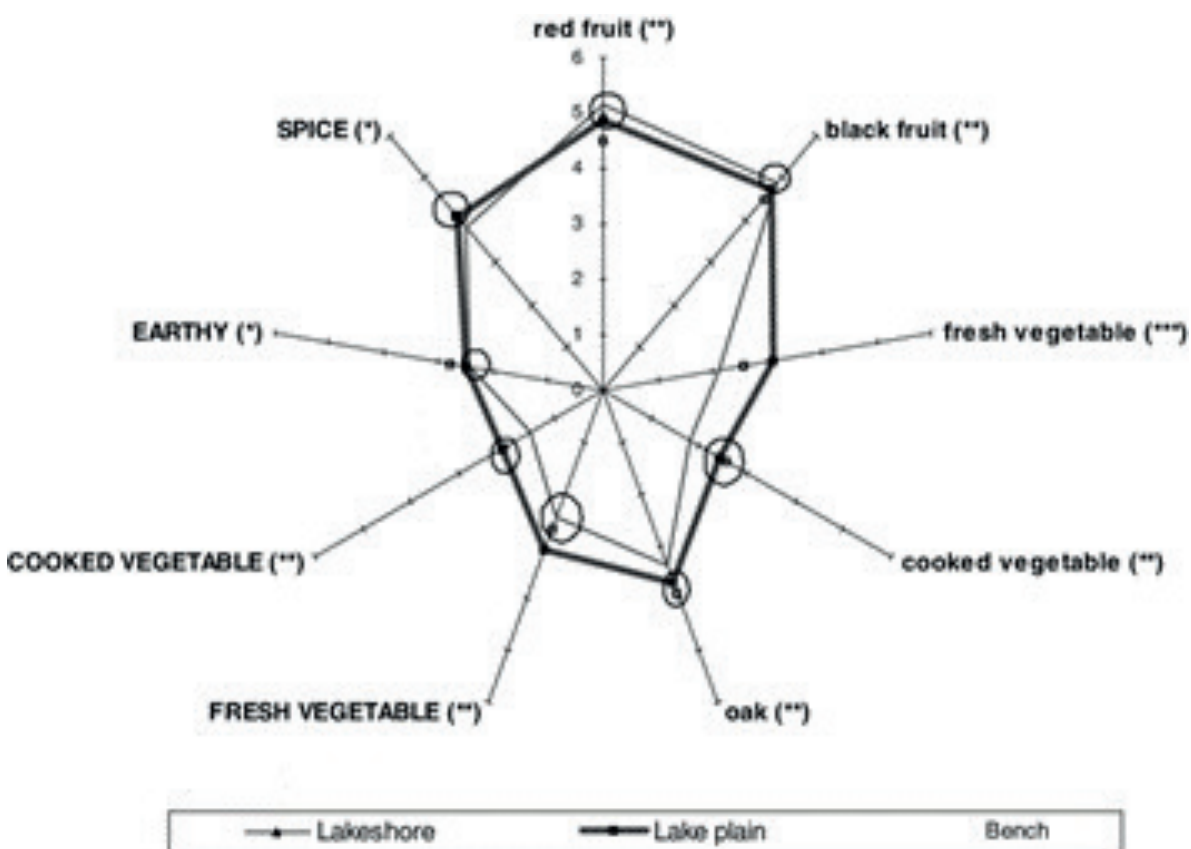
Chamomile has also been used to treat colic, croup, and fevers in children. It has been used as an emmenagogue and a uterine tonic in

women. It is also effective in arthritis, back pain, bedsores and stomach cramps. Chamomile whole plant is used for making herb beers, and also for a lotion, for external application in toothache, earache, neuralgia and in cases of external swelling

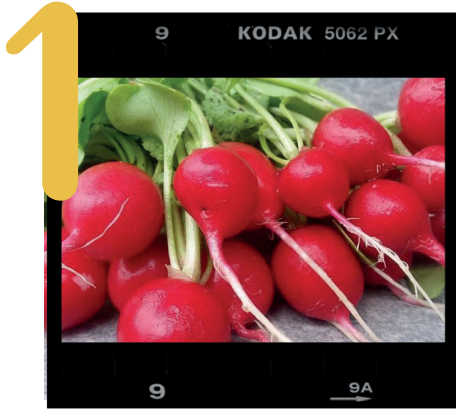


Annex IV. Cobweb (Spider web)





Annex V. Test your knowledge



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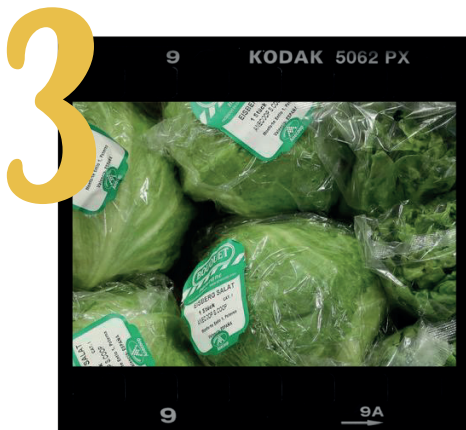
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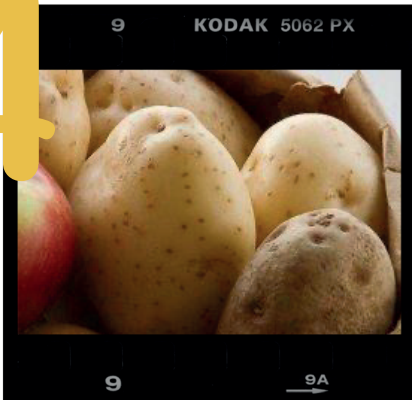


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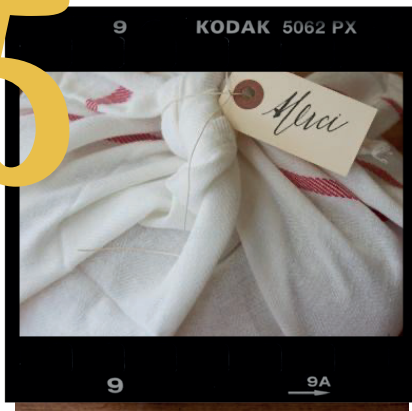


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1. Not right – Should be stored without twig - root vegetables, radishes, beetroot - remove the twig as soon as you buy them, as this unnecessarily sucks nutrients and moisture from the root. Place the twigs in a glass of water and use later in a salad or smoothie.

2. RIGHT - The trick is humidity. Lettuce and all leafy greens, herbs, sprigs but also cauliflower, broccoli, carrots and asparagus - they like moisture to stay fresh and crisp. Just stand the sprigs, leaves, asparagus and carrots in a glass of water like a bouquet. Large greens like lettuce, broccoli and

cauliflower are best wrapped in a damp kitchen towel, placed on a plate and tucked into the fridge. Check the dish towel regularly and moisten when needed. You won't believe it, but lettuce will stay crisp this way for over a week. Alternatively, you can peel the carrots and radishes and seal them in a jar, submerged in water. Of course, store everything in the fridge.

3. 2nd is better - Simply layer a few sheets of paper towels between the lettuce leaves. Change out the towels every few days (or whenever they become very damp).



4. NOT RIGHT - Not all fruits and vegetables like each other. In fact, some release ethylene and other types rot quickly in their vicinity. So a nice big colorful bowl of fruit is complete rubbish. Always store especially the apples, pears, plums, apricots, bananas, melons (other than red), mangoes and tomatoes separately. These emit a lot of ethylene.

5. Ist is better - Potatoes, onions, garlic - these are vegetables that like darkness and dryness. If you don't have room in your cupboard, a paper bag with small holes for ventilation will do. And ideally, onions and potatoes should be stored separately,

otherwise they will sprout quickly. Add an apple or two to the potatoes and they'll stay fresh longer.

6. Ist is better - Fresh bread releases a lot of moisture, so it's not wise to seal it in an airtight plastic bag. The moisture will get trapped inside and the bread will quickly start to mould. Research shows that it is best to wrap the bread in a cotton cloth and close it in a bread bin. This allows the moisture to escape while keeping the bread from hardening. Another option is a special linen bag or beeswax bag.

Annex VI. Hike Quiz

1. Select the most appropriate method in terms of the waste hierarchy

- a) Recycling
- b) Waste prevention
- c) Combustion using energy

Additional explanation: The best is the waste which is never produced.

2. Cooking on which type of stove is the least burdensome for the environment?

- a) Induction plate
- b) Gas stove
- c) Ceramic hob

Additional explanation: Induction hobs are the least burdensome for the environment. In the UK, for example, cooking consumes 6% of total energy, appliances spend 59% and heating 17%.

3. Which of these gases contributes to global warming ?

- a) Helium
- b) Oxygen
- c) Methane

Additional explanation: Out of these three gases, methane contributes to global warming. Part of the sun's radiation is absorbed and heats the surface of the planet. The rest escapes back into space, but part of it remains trapped in the atmosphere and further warms the Earth. This phenomenon is called the greenhouse effect. It occurs because the atmosphere contains gases (water, carbon dioxide, methane and nitrous oxide).

4. Recycling which material has up to 95% energy savings compared to its production?

- a) Glass
- b) Aluminium
- c) Plastic

5. Where does more than half of the world's respirable oxygen come from?

- a) From rivers and lakes

b) From the oceans

c) From forests

Additional explanation: More than half of the world's respirable oxygen comes from the oceans, which are produced mainly by plants called phytoplankton. The oceans absorb a third of CO₂ (carbon dioxide), but are acidified, which has adverse effects on plankton in particular. As a result of global warming, the population of plankton has fallen by 40% since 1950. In addition, plankton is the basis of the ocean's food chains.

6. What are 5 principles of Zero Waste?

- a) REFUSE, REDUCE, REUSE, RECYCLE, ROT
- b) LIVE, ENJOY, BUY, USE, THROW
- c) TRAVEL, VISIT, TALK, BORROW, RETURN

7. Which country was the first to introduce home electronics recycling in the 1990s?

- a) Sweden
- b) Netherlands
- c) Switzerland

8. What is the circular economy?

- a) The aim is to produce as much waste as possible.
- b) It is built on the principle of sustainability, durability of goods and recycling.
- c) The material produced is mostly disposable.

Additional explanation: The circular economy is a system in which the design of a product is already designed in such a way that it has the longest possible lifespan and is waste-free. Sustainable and renewable resources and materials are therefore used. Individual components are created so that they are reusable and repairable, and, where necessary, recyclable or biodegradable. The opposite of the circular economy is the linear economy, in which goods are created that are bought, used and then thrown away. It is therefore unsustainable in the long term.

9. Around 50% of the waste that ends up in trash

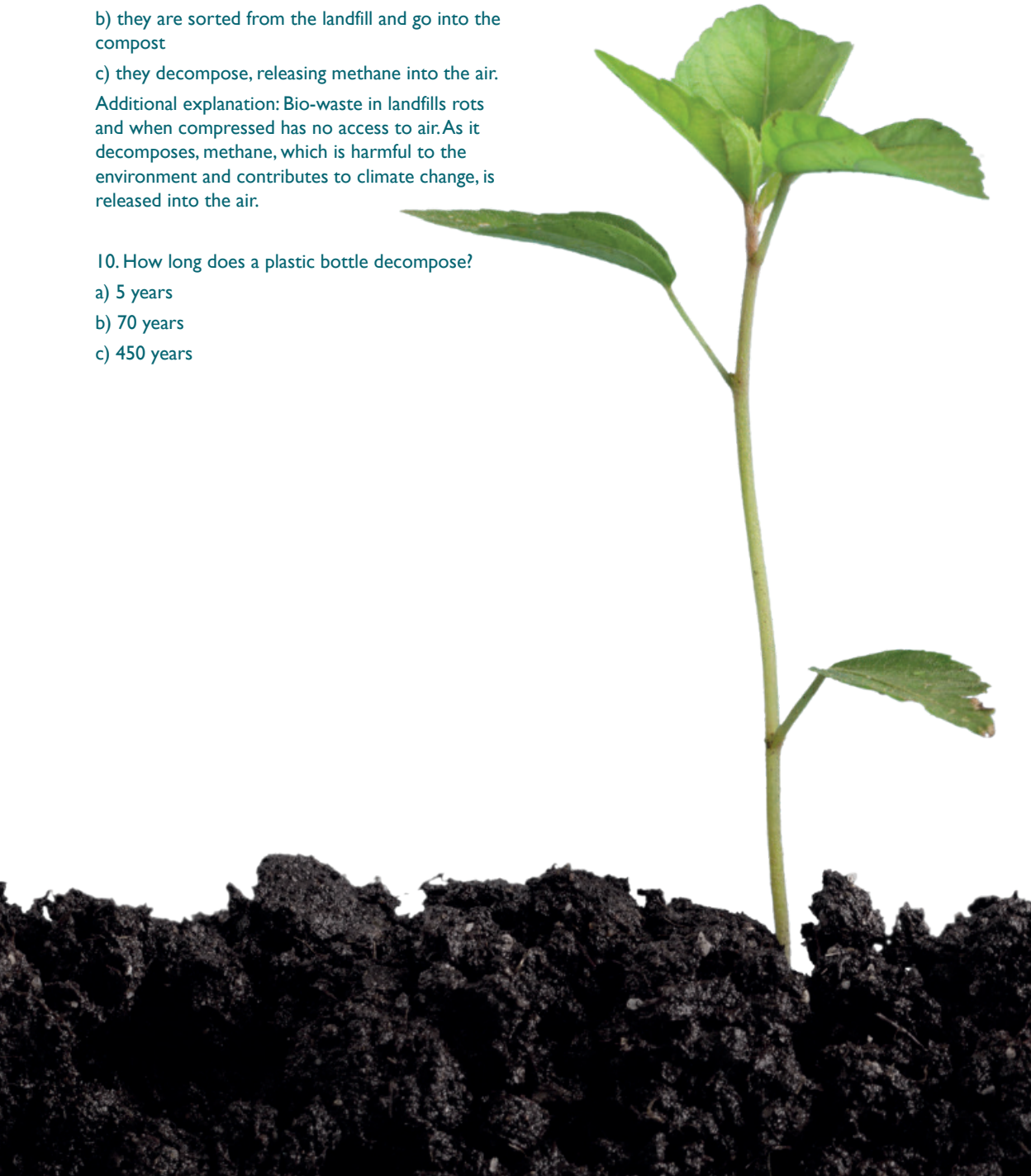
cans can be composted. What happens to the food scraps that go to landfill?

- a) it decomposes in a way that does not harm the environment
- b) they are sorted from the landfill and go into the compost
- c) they decompose, releasing methane into the air.

Additional explanation: Bio-waste in landfills rots and when compressed has no access to air. As it decomposes, methane, which is harmful to the environment and contributes to climate change, is released into the air.

10. How long does a plastic bottle decompose?

- a) 5 years
- b) 70 years
- c) 450 years





“Eco-Friendly Sports” project aims to promote sport and physical activities that not only contribute to better health, but also have a positive impact on the environment. Objectives of the project are:

to promote and develop new methods of environmental education through sport,

to increase amount of eco-friendly sport events organized,

to generate public awareness about possible connection of sport and protection of environment,

to foster citizens engagement in sport, but also encourage them to take action towards better environment,

to improve knowledge and experience of representatives of sport clubs and youth workers about concept of eco-sport,

to provide opportunities in the urban life style to keep people’s physical and mental health and to significantly decrease the stress levels,

to build a society who feels close and attached to nature will contribute to using natural resources sustainably and thus building sustainable cities,

to contribute to social inclusion of young people from disadvantaged background.

<https://www.ecofriendllysport.eu>



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