

Youth Work

in the field of
Education for Sustainable Development
in Youth Organizations and NGO's



Best Practice-Workshops from Belarus and Germany
Results of an international Skilled workers program
April 2023 in Hannover/Germany

Organized by
JANUN Hannover e.V. (Germany) & Belorussian Partner

Content

Introduction	3
The primary idea of this brochure	4
Partners in the project	5
Best practices	6
Climate change education	6
Nutrition and climate	6
Mobility and climate	11
Adaptation vs. Mitigation	16
Global warming	20
Nature education	24
How to create a good outdoor workshop	24
Land art workshop	27
Natural symbols	30
Ecosystem - Game	33
Education for Global goals	33
Global Goals and me	33
Global Justice	36
Eco-city Workshop	41
Creathon - Ideas into Actions	44
Contact	50



Introduction

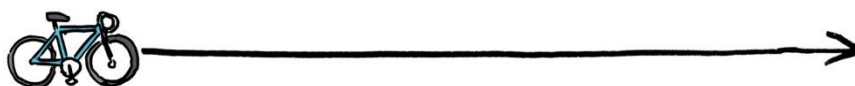
This booklet is the outcome of the specialized program "Youth Work in the field of Education for Sustainable Development in Youth organizations and NGOs," which was held from April 18–24, 2023, in Hannover, Germany. Every participant, whether from Germany or Belarus, works full-time or on a volunteer basis with young people in the field of education for sustainable development.

The participants were to get training on youth work approaches in the field of education for sustainable development, both in terms of content and methodology. The collaborative program was built on inputs, project visits, and a thorough sharing of individual experiences and knowledge. The program included two one-day conferences that provided the opportunity to meet a number of German practitioners and interested parties. The vibrant and diversified exchange of capacities and experiences was facilitated by the two conferences.

The intention was to enable the German and Belarusian participants from various NGOs or working as independent contractors on various youth projects to maximize networking opportunities, to interact with one another and gain from each other's expertise and the planned program. Furthermore, the objective was to facilitate enduring collaborations by means of gatherings of youth and environmental groups from Germany and Belarus, together with educational stakeholders. There was a great deal of networking between the two country delegations of this program, as well as between Germans and Belarusians.

Numerous recommendations and pieces of information were given to the attendees. They were provided access to educational materials and taught about the principles of non-formal education on environmental concerns and nature in youth work. They were ingrained in the idea and emancipatory approach of education for sustainable development. The participants made connections with professionals that they might later consult to further their own work in non-formal education on subjects linked to sustainable development.

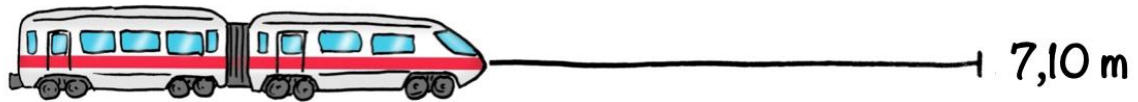
In the end, this will help the youth who will participate in future events that are planned and directed by the members of this specialized program.



Financial support

The skilled workers program and this brochure were made possible through financial support from the European Union, Erasmus+ program.



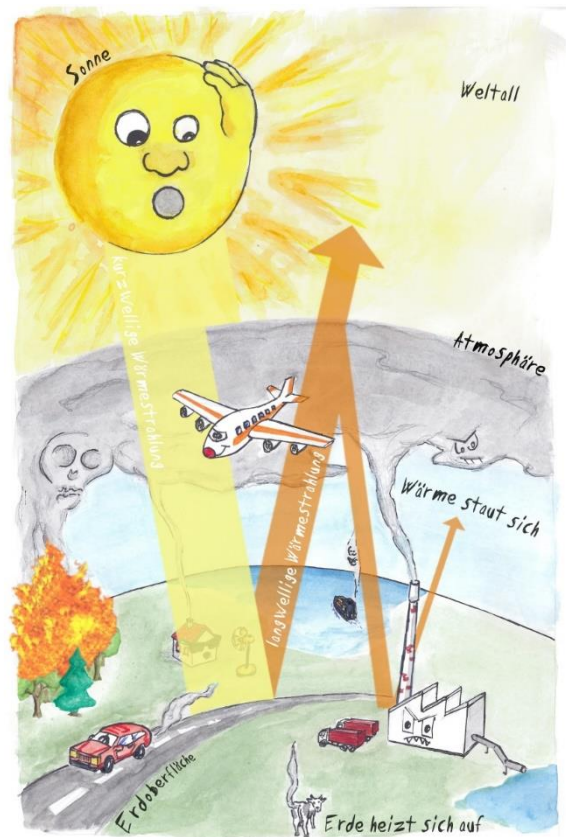


The primary idea of this brochure

This booklet is a compilation of particularly outstanding best practice examples of education for sustainable development, as chosen by an editorial group composed of trainers and participants. This is coupled with the hope that a large number of people obtain this booklet and find inspiration in the project examples, as ecological sustainability is one of the main challenges facing Europe and the globe in the future.

Work in education will play a significant role in creating a more sustainable way of life in the future. The next generation of young people, the designers of future, in particular, should be passionate about environmental issues. Environmental education alone is not enough to address sustainable development.

The goal of education for sustainable development is to help youngsters analyze and evaluate information, come to their own conclusions and implications, understand how they fit into the larger picture, and then maturely and effectively contribute to both their own and all of our present as well as shape the future. In this way, promoting sustainable development through education also contributes to strengthening civil society and democracy. Further, critical thinking and civic involvement are fostered by education for sustainable development.



Partners in the project:

Environmental NGO¹ / Minsk-Belarus

In order to promote sustainable development, an environmentally friendly lifestyle, and the expansion of international environmental cooperation, a partner non-governmental organization from Belarus was founded at the end of the 2000s. One important aspect of its activities is providing young people in Belarus with the opportunity to get involved in environmental protection.

The Belarusian organization employed a range of strategies in its operations to encourage environmental preservation, including encouraging teachers, educators, and youth group leaders to include young people in environmental activities and providing interactive exhibitions for kids. The yearly youth environmental education course, which enables young people to get independently involved in nature and environmental conservation projects, and the educational program "River Watch" for kids and teens are two examples of youth activities.

The Belarusian partner actively pushed for environmentally friendly solutions at the legislative level in Belarus and conducted rigorous analytical work on ecologically critical topics in addition to its active activity to educate and inform the community.

JANUN Hannover e.V. / Germany

JANUN e.V. was founded in 1994 by several youth environmental initiatives in Hanover. While nature and environmental protection were the focus of activities in the first few years after the organization was founded, other topics were added over the years.

Around 80 young people are currently active in the following projects: environmental education, nature conservation, natural gardening, climate protection, consumption and globalization, inclusion, sewing workshop, press and public relations, international affairs. Weekend seminars and 10 - 12 international youth exchange programs take place throughout the year, mainly with partner organizations from Belarus, Ukraine, Kurdistan/Turkey, Poland, Slovenia, Serbia, Belgium



JANUN Hannover e.V.

and Norway. JANUN has been active in extracurricular non-formal education for many years, locally, regionally and internationally. JANUN e.V. conducts around 120 workshops every year in Hannover, mostly peer to peer with school classes and other groups, many on ecological topics, but many also on global learning. JANUN is active to enable young people to develop their own educational workshops and to include a wide variety of non-formal methods in these workshop concepts and to apply them themselves. The young people involved in these projects receive ongoing training from JANUN e.V. The international projects also often involves the development and implementation of educational offerings. Young people and specialists are involved as extensively as possible in the conception, preparation, implementation and follow-up of the international youth-projects and training courses.

¹ For security reasons arising from the current political situation in Belarus, the authors cannot mention the name of the Belarusian association, although its contribution, as well as that of many other civil society actors in Belarusian environmental education and ESD, cannot be denied.

Best Practices



Climate Change education

Nutrition and climate

Diet: Enjoy your meal! The climate is at the table

Short description	<p>During this workshop, participants deal with issues around an environmentally friendly diet. Specifically, they compare different foods and the greenhouse gas (GHG) emissions they incur.</p> <p>Participants learn that the production of different kinds of foods releases varying levels of GHGs into the atmosphere. They're asked to match up the foods to the respective emissions they incur, and are invited to discuss, guess, and explore the emission levels the products cause and why. As a by-product, they learn how they can adopt a climate-friendly diet.</p>
Main goal	To learn about varying levels of GHGs from different kinds of food and to discuss the variants of a climate-friendly diet.
Time required	20–30 minutes
Setting	Indoor or outdoor
Method	Interactive game
Materials	<ol style="list-style-type: none">1) Foam (or cardboard or similar) cubes with the following side lengths:²<ul style="list-style-type: none">● Fresh vegetables: 0.53 cm● Fresh fruit: 1.05 cm● Wheat and rye: 1.57 cm● Milk: 3.15 cm● Eggs: 4.67 cm● Beef: 99.48 cm2) Suitable symbols/toys for fresh vegetables, fresh fruit, bread or wheat/rye, eggs, milk and beef
Preparation	<ol style="list-style-type: none">1) Production of the cubes out of, e.g., cardboard

² The distances are based on Poore, J., & Nemecek, T. (2018). Reducing food's environmental impacts through producers and consumers. *Science*, 360(6392), 987-992. Online: <https://science.sciencemag.org/content/360/6392/987> [last accessed on 12 December 2022]; see also: <https://ourworldindata.org/explorers/food-footprints> [last accessed on 12 December 2022]

	<p>2) Procurement of suitable replica food items or printouts of images. Using real food items is also possible, provided they do not go to waste (e.g., they can be cooked afterwards)</p>
<p>Description of the activity</p>	<p>1) Facilitators can start with the following ice-breaker questions to introduce the participants to the topic of the workshop:</p> <p>For younger participants:</p> <p><i>“The farming sector is responsible for producing the food we eat. What kind of food did you eat yesterday?”</i></p> <p>The responses will provide an initial overview of different food items.</p> <p>For older participants:</p> <p><i>“What kind of food do you think is better for the climate? Which is worse?”</i></p> <p>This helps to produce some initial ideas about how our diet impacts climate change. A follow-up question is:</p> <p><i>“Can you imagine why or how the foods you just mentioned create greenhouse gas emissions?”</i></p> <p>These questions create an awareness that several factors are at play here, such as crop production, animal husbandry, processing, packaging, transportation, animal feed, etc.</p> <div data-bbox="523 1137 1251 1733" data-label="Image"> </div> <p>2) Having exchanged these thoughts, the workshop became more interactive. Participants are invited to estimate the amount of harmful GHG emissions that result from the production of one kilogram of the following foods: vegetables, fruit, bread, milk, eggs, and beef.</p> <p>Note: The values associated with the foods are global averages. The calculation of GHG emissions is based on a number of aspects, including</p>

- changes in land use (e.g. soybean farming on cleared rainforest areas),
- fertilizer use or emissions caused by liquid manure,
- production of animal feed,
- transportation (this means transportation from farms to food retailers, not include transportation from food retailers to consumers' homes),
- packaging,
- food retail (energy consumption in e.g. supermarkets, for instance for refrigeration).³



The six cubes that represent the GHG emissions are arranged in a row according to size. The food symbols (or replica food items) are then handed out to some members of the group so they can match up each one to one of the cubes. The others can advise them on doing so. Once all matches have been done, their chosen order is checked. If errors were made, the facilitators may provide some hints. For instance, they could say “You’ve matched up four foods correctly; two are incorrectly matched. Why not take another look?” The participants then re-match all items until they have arrived at the right solution. If

things take too long, the facilitators can intervene and match the items correctly themselves.

While following the matching process, the facilitators can encourage participants with the following questions. Any answers can be supplemented as required.

Why has the cow been matched up with the largest cube?

Cows are ruminants and hence produce large amounts of methane emissions when they belch and break wind. Their manure also produces nitrogen. Besides CO₂, they produce other GHGs that contribute towards climate change, such as methane and nitrous oxide. Grazing land is fertilised, which is another factor. A cow that lives and hence produces methane for one year is as damaging to the climate as one car that travels around 18,000 km. Methane is 21 times more harmful to the climate than CO₂. Also, cows require

³ Cf. Hannah Ritchie (2022): FAQs on the Environmental Impacts of Food. Online: <https://ourworldindata.org/faqs-environmental-impacts-food> [last accessed on 12 December 2022]

large amounts of feed, which often has to be transported from the feed producer to the farm.

Look at the difference between the cube with the beef and the cube with the milk. Why do you think the difference is so great?

This is all about how many litres of milk a dairy cow can produce each day and how long a cow needs to grow to produce one kilogram of beef. A dairy cow produces between 15 and 40 litres a day depending on performance. So if a cow produces, say, 24 litres of milk every day, it will emit one hour's worth of methane per litre as it belches and breaks wind. Beef "grows" much more slowly, and so a cow destined to produce beef will emit far more methane per kilogram.

Why do you think vegetables are more climate-friendly than fruit?

This mostly depends on where the vegetables and fruit are produced. Vegetables often have a slightly smaller carbon footprint than fruit because they are more often produced regionally, so the distances over which it is transported tend to be smaller. Some fruits don't grow in Europe (e.g., exotic fruits like pineapple, mango and banana) so they have to be imported and hence travel longer distances.

There are also major differences in carbon footprint among vegetables depending on how they are grown. For instance, sun-ripened tomatoes grown outside of a greenhouse have a far smaller carbon footprint than tomatoes that are grown indoors in heated greenhouses.

Why do animal products generally have a larger carbon footprint than plant-based foods? For instance, why are soy cutlets better in this regard than a steak?

The term "soy" often makes us think of the destruction of the rainforest. However, it is often forgotten that most of the soy that is farmed there is used for animal feed. The soy used to produce soy cutlets is often produced regionally. Generally speaking, plant-based products are better for the environment than meat because their production is less resource-intensive. Soy and other plants could help feed far more people if they were not used as animal feed, but instead were used directly in the production of food for human consumption. Farmed animals require the energy they get from feed for all kinds of metabolic processes. Only around 10 to 35% of the calories contained in feed goes into producing meat, milk or eggs.^{4 5}

What is bread made of? And why does bread production impact on the climate?

Provided the grain for the bread is produced regionally, the climate impact of bread production is attributable to the baking. Most types of bread are baked at temperatures ranging from 200 to 270 degrees C for up to around 50

⁴ Cf. <https://albert-schweitzer-stiftung.de/aktuell/warum-sojawurst-nicht-dem-regenwald-schadet> [last accessed on 12 December 2022] (in German)

⁵ https://www.researchgate.net/publication/263192492_Embodied_crop_calories_in_animal_products [last accessed on 12 December 2022]

minutes. Baking requires a great deal of energy, usually electricity. Electricity generation can cause major GHG emissions.

Where do the emissions in chicken farming come from?

Chicken-rearing in batteries, which are large barns with up to 30,000 chickens, is highly energy-intensive. In addition, chicken manure releases large amounts of methane. Battery-farmed chickens are fed on soy, corn and grain that is often imported from halfway across the world. For instance, the soy that goes into chicken feed may be produced on fields that used to be rainforest. Eggs produced by free-range chickens are better for the climate. The same goes for eggs that are laid by chickens kept by neighbours and fed on kitchen scraps.

3) Finally, the participants should summarise what they think should be considered if one wants to adopt a climate-friendly diet. When it comes to the carbon footprint of individual foods, it should become clear that

- it makes a major difference where and how these are farmed and/or produced,
- regional and seasonal products have a smaller impact on the climate (shorter distances to cover, no artificial heat sources),
- fresh products are better for the climate than frozen foods (refrigeration is energy-intensive),
- highly processed foods have a larger carbon footprint (e.g. French fries vs. potatoes).

Provided interest in the subject has not waned, facilitators are invited to contribute additional aspects to the discussion:

- The climate-related benefits of regional foods are mostly eliminated if consumers use their cars to get to the nearest supermarket.
- Today, our food is transported over ever increasing distances.
- The production of regional outdoor tomatoes generates around 85 grams (conventional) or 35 grams (organic) of CO₂ per kg. By comparison, if tomatoes are grown out of season in heated greenhouses, they incur 100 times as much CO₂ (organic: 9.2 kg vs. conventional: 9.3 kg).⁶
- Butter has a far greater climate impact than margarine.
- In Germany, 70% of food-related GHG emissions are incurred by animal products although they only account for 10% of the food consumed.⁷

⁶ <https://www.nachhaltigkeitsrat.de/aktuelles/bio-ist-nicht-immer-besser-rat-fuer-nachhaltige-entwicklung-empfoehlt-regionale-und-saisonale-ernaehrung/?cn-reloaded=1> [last accessed on 22 December 2022] (in German)

⁷ <https://www.wwf.de/themen-projekte/landwirtschaft/ernaehrung-konsum/besseresserinnen/durch-gesunde-ernaehrung-klima-und-arten-schuetzen> [last accessed on 22 December 2022] (in German)

	Suggested final statement: More than a quarter of all man-made GHG emissions are attributed to food production. ⁸ If you want to help curb climate change, you don't have to eat less – but you could consider adapting your eating habits.
Want to know more?	Here's a good video clip that explains whether meat really is that bad for the climate: https://youtu.be/F1Hq8eVOMHs



Mobility and climate

How far can I get on half a gram of CO₂?

Short description	The participants find out how far they can travel by car, long-distance train and plane if each vehicle produces the same amount of greenhouse gas emissions. They each "travel" until they have emitted a certain quantity of climate-damaging greenhouse gases. The exercise teaches participants about the greenhouse gas emissions of different modes of transport and encourages them to reflect on their own mobility behaviour. At the end of the exercise, participants can discuss the advantages and disadvantages of the different modes of transport. If there is enough time, workshop leaders can provide more information on the subject of mobility.
Main goal	To explore the climate effect of various modes of transport
Time required	20-30 minutes
Method	Interactive game
Setting	Requires a lot of space (indoor – a long hall, outdoor – a yard, a park)
Materials	Three tape measures or similar (cord, etc.) Car: 2,40 meter Train: 7,10 meter, Plane: 1,10 meter in length 6 pieces of cardboard, two for each mode of transport, cord or string
Preparation	1) Production of eight cardboard signs (two planes, two cars, two trains, two coaches) which participants hang around their neck

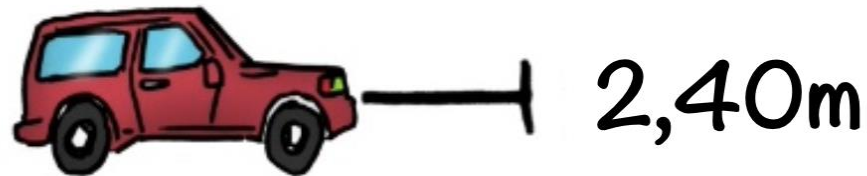
⁸ Cf. Hannah Ritchie and Max Roser (2022): Environmental Impacts of Food Production. Published online at OurWorldInData.org. Retrieved from: <https://ourworldindata.org/environmental-impacts-of-food> [Online Resource] [last accessed on 12 December 2022]

	<p>2) Creation of measuring tapes or similar with the following lengths^{9,10}</p> <ul style="list-style-type: none"> ● Plane (short-distance flight of up to 1500 km): 1.10 (1,96) m ● Car (mid-size, petrol, 1 person): 2.40m ● Train: 7.10 m
Description of the activity	<p>1) The participants start by naming the types of transport that can be used to travel from one city to another. It's a good idea to pick two cities they can travel between either by train, car or plane. Once they have named the three modes of transport car, train and plane, six volunteers are selected. The workshop leader then distributes the six signs amongst the volunteers and assigns two appropriately labelled signs to each mode of transport.</p> <p>2) Now it's time to explain the exercise:</p> <p>The aim is to find out how far a person can travel by train, plane or car if they are only allowed to produce half a gram of greenhouse gases (so-called carbon dioxide equivalents, CO₂eq). Carbon dioxide (CO₂) is the main greenhouse gas, but not the only one. To cover all greenhouse gases, scientists speak of "carbon dioxide equivalents" (CO₂ eq). These include methane and nitrous oxide, for example, not just CO₂. For the sake of simplicity, we will refer to them here as greenhouse gases.</p> <p>The participants take into account the average occupancy of the individual modes of transport, which plays a key role in determining how climate-friendly they are. When there are five people in a car, the mobility of each person is more climate-friendly than when a person travels alone in the car, as in this example.</p> <p>It is important that workshop leaders explain the following:</p> <p><i>The question is how far <u>a single person</u> can travel by train, plane or car or with their half a gram of greenhouse gases. All the other people travelling with them also have half a gram. How far does their train/car/plane get before <u>each passenger's</u> half a gram is used up?</i></p> <p><i>The average occupancy of each type of transport is factored into the calculation. For example, a train is bigger and heavier, uses more energy and therefore produces more greenhouse gases than a car. But, more people are sitting in a train than in a car. So if an average 420 people are travelling in a ICE-Train in Germany for example. Now we want to know how far the train can travel on 420 x 0.5 grams of greenhouse gases.</i></p>

⁹ The distances are based on: UK Department for Business, Energy & Industrial Strategy. Greenhouse gas reporting: conversion factors 2019. Online: <https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2019> [last accessed on 22 December 2022]

¹⁰ Emission levels for cars, coaches and planes are similar in different countries. However, depending on how trains are powered, e.g. whether by electricity – and depending on how this is generated – or whether by diesel, these levels differ from country to country. Vehicle occupancy, i.e. how many people travel in a train, plane or coach, also affects the calculation. The examples given here are based on data and average values from the UK. Nevertheless, they are a useful point of reference. The emission of greenhouse gases, so-called CO₂ equivalents, is measured. Cf. Ritchie, Hannah (2020): Which form of transport has the smallest carbon footprint? Online: <https://ourworldindata.org/travel-carbon-footprint> [last accessed on 22 December 2022]

Three persons with the plane, car and train signs are asked to stand in a line, and each is given the tape measure or cord for their respective mode of transport. The other four volunteers line up opposite and take the other end of the tape measure/cord. Later, they are asked to step backwards one after the other until their respective tape measure/cord is completely unrolled.



We start with a car.

"One person travels in a car. How far can a car go until it emits 0.5 grams of greenhouse gases?" The tape measure is rolled out. It stops at 2.40m.



The participants now have some idea about how far they can travel by car with a half a gram of greenhouse gases. This helps them guess how far they can get with the other three modes of transport.

Before the other three tapes are rolled out, the participants are invited to guess how far they can get by coach, train and plane compared to the car.

They start with the plane. The participants guess how far passengers on a short-haul flight can travel until each passenger has used up half a gram of greenhouse gases. They do so by sending the workshop leader to the appropriate spot. They tell the leader to "keep going" until the majority eventually shouts "stop".



Younger participants might need to be reminded of the following:

"If the plane gets further than the car, it's more climate-friendly than the car. If it's more harmful for the climate, you should shout "stop" before it reaches the car."

After the group has agreed on a distance and told the workshop leader to stop, the volunteer with the plane sign walks backwards with the tape measure until it is completely unrolled. Participants can then see whether the group has estimated correctly. They stop at 1.96m. Many might think: "*This isn't actually that much worse than the car.*" But a more detailed explanation is needed here:

The greenhouse gases emitted by the plane have an even more harmful effect on the climate at a high altitude than they have on the ground. A plane also produces other harmful emissions, such as nitrogen oxides, soot particles and water vapour (the white stripes in the sky). These have to be factored into the carbon footprint of air travel. Their impact equates to at least twice the amount of pure greenhouse gas emissions.¹¹ So our passenger has to go back to 1,10.m. The distance travelled per 0.5 grams is nearly halved.

The same procedure is repeated with the train. If time runs out, It becomes clear that travelling by train is much more climate-friendly than travelling by plane or car. A coach is similar to a train.



Wrap-up

Possible questions at the end of the exercise:

- Are you surprised by the result?
- Why are driving and flying so harmful for the climate?
- How can you travel in a more climate-friendly way?
- What should policy-makers do?

¹¹ <https://bevarjordforbindelsen.dk/non-co2-related-climate-effects-from-flight-cant-we-just-walk-quietly-through-the-doors/> [last accessed on 20 December 2022]

<p>Want to know more?</p>	<p>Here are a few more facts which workshop leaders can use for a more in-depth discussion on mobility:</p> <p>These countries have the following number of motor vehicles (car, bus and lorry) per 1,000 inhabitants: Poland: 771, Germany: 628, Belgium: 482, Bangladesh: 27, Malawi: 13 and North Korea 1.</p> <p>If your country wasn't included, take a look at the following article https://en.wikipedia.org/wiki/List_of_countries_by_vehicles_per_capita</p> <p>A study by the RAC Foundation revealed, for example, that the average car in the UK is stationary for about 162 hours a week and is driven for only about six hours. This equates to a "parking ratio" of around 96 percent!¹²</p> <p>The average speed of a car during rush hour in a major German city like Hamburg is around 20 km/h. This means a car is not much faster than a bike.¹³</p> <p>2.25 billion people around the world flew on a plane in 2009; in 2019, 4.56 billion people travelled by plane, which means the number doubled in 10 years.¹⁴</p> <p>Less than 20% of the world's population has ever flown on a plane.¹⁵ (Participants' estimates are usually much higher.)</p> <p>The enormous weight of an aircraft (an Airbus 380 weighs 560 tons) has to be brought to an altitude of about 10,000 metres. This takes a huge amount of jet fuel. Greenhouse gases emitted at this altitude are also more harmful for the climate than at ground level.</p> <p>The flightradar24.com app shows how many planes are in the air worldwide at any one time. It illustrates the scale of air traffic.</p> <p>Each person has an annual budget of 1.5 tons of CO₂, which must not be exceeded if global warming is to be limited to a maximum of 1.5 degrees.¹⁶ For example, a flight from Copenhagen to Madrid and back uses up almost exactly half this annual budget, which also covers emissions for accommodation, food, etc.¹⁷</p> <p>The average amount of greenhouse gas emissions per capita in different countries is presented here:</p>
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¹² <https://www.racfoundation.org/research/mobility/spaced-out-perspectives-on-parking> [last accessed on 21 December 2022]

¹³ <https://de.statista.com/statistik/daten/studie/1079302/umfrage/durchschnittliche-fahrgeschwindigkeit-zur-hauptverkehrszeit-in-deutschen-grossstaedten/> [last accessed on 22 December 2022] (in German)

¹⁴ <https://de.statista.com/statistik/daten/studie/1079302/umfrage/durchschnittliche-fahrgeschwindigkeit-zur-hauptverkehrszeit-in-deutschen-grossstaedten/> [last accessed on 22 December 2022] (in German)

<https://data.worldbank.org/indicator/IS.AIR.PSGR?end=2020&start=1970&view=chart> [last accessed on 22 December 2022]

¹⁵ https://www.atmosfair.de/en/green_travel/annual_climate_budget/ [last accessed on 22 December 2022]

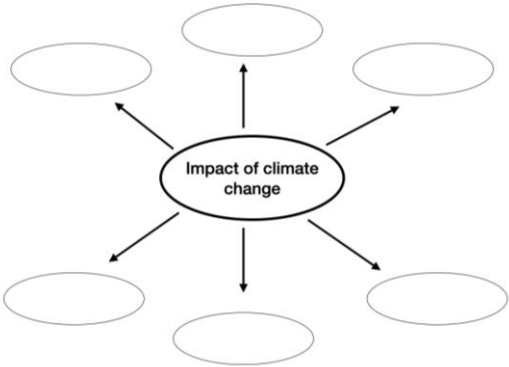
¹⁶ https://www.atmosfair.de/en/green_travel/annual_climate_budget/ [last accessed on 22 December 2022]

¹⁷ Cf. https://co2.myclimate.org/en/flight_calculators/new

	<p>https://en.wikipedia.org/wiki/List_of_countries_by_carbon_dioxide_emissions_per_capita</p> <p>Cars weigh an average of almost 2 tons and are often used only for the purpose of transporting a 25-kg child to kindergarten. This is ineffective and uses a lot of fuel. For example, the average occupancy rate of a car in Germany is only 1.4 persons.</p>
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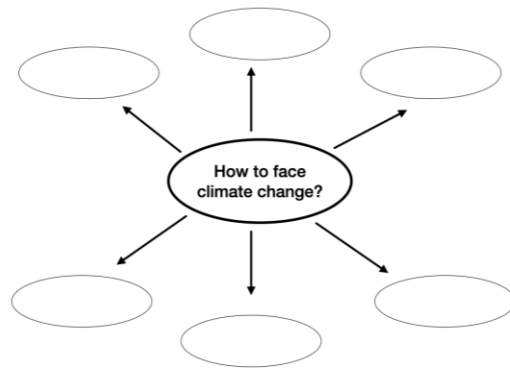
Adaptation vs. Mitigation

How to face climate challenges today?

Main goal	To learn about main response strategies to climate change
Time required	90 minutes
Setting	Indoor, enough space for comfortable work of 3-4 groups (3-4 tables, chairs)
Method	Case-study method, group work
Materials	Flip-chart paper, markers, hand-outs
Preparation	Selection of case-studies ¹⁸ and printing out hand-outs for 3-4 groups, incl. templates for case-studies analysis (pic 4 and 5). Production of 3-4 templates (pic. 2 How to face climate change) for group work.
Description of the activity	<p>1) At the beginning, the participants as a whole group are introduced with a concept “climate change” and asked to name the possible impacts of climate change. The facilitator may use a web of associations at the black board or at the flipchart.</p> 

¹⁸ <https://climate-adapt.eea.europa.eu/en/about/climate-adapt-10-case-studies-online.pdf>
[last accessed on 22 September 2023]

2) The next step is to find out what are the possible solutions to face the consequences of climate change issues. The participants may be divided in 3-4 groups and provided with templates to fill in the possible solutions.



Then the groups present shortly their solutions and the facilitator asks them questions like:

- Is it a short-term or a long-term solution?*
- Who is responsible for implementing this solution? What stakeholders should be involved?*
- Is this solution applicable in the countries of Global South/Global North?*
- Why?*
- Does it need a lot of financial investments?*

Step by step the participants are brought to the understanding that there are solutions at the local level and national/international level, that there are those which target specific climate change issues and are region-based and those which target global aims like decreasing the greenhouses gases in the atmosphere in general, and are applicable almost everywhere.

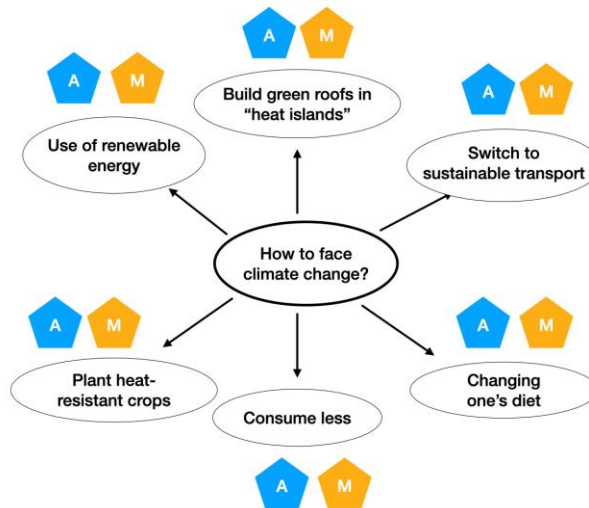
3) Upon group presentations the facilitator introduces two more concepts and encourages groups to allocate their to solutions to adaptation, mitigation measures or to the both of them (see example below).

Adaptation - adjustment to actual or expected climate and its effects (IPCC, 2001¹⁹).

Mitigation - making the impacts of climate change less severe by preventing or reducing the emission of GHG into the atmosphere.(IPCC, 2001²⁰).

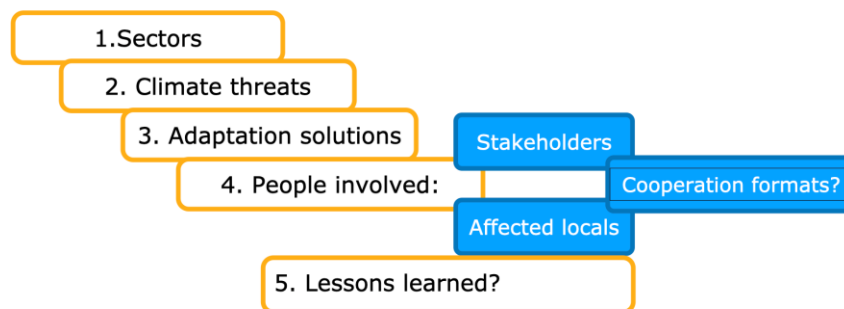
¹⁹ <https://www.ipcc.ch/site/assets/uploads/2018/02/ar4-wg2-chapter18-1.pdf> [last accessed on 22 September 2023]

²⁰ <https://www.ipcc.ch/site/assets/uploads/2018/02/ar4-wg2-chapter18-1.pdf> [last accessed on 22 September 2023]




4) Then the participants are divided into 3-4 small groups. Each group receives 2-3 case-studies, demonstrating mitigation and adaptation practices at local/national and European levels²¹. In small groups within 40-45 minutes participants read the hand-outs with case-studies, and analyse them afterwards according to the template and supplementary materials, proposed by a facilitator.

Template for case studies analysis



²¹ The adaptation and mitigation practices may be taken from these sources: <https://climate-adapt.eea.europa.eu/en/about/climate-adapt-10-case-studies-online.pdf> [last accessed on 22 September 2023]

<https://www.nature.org/en-us/what-we-do/our-priorities/tackle-climate-change/climate-change-stories> [last accessed on 22 September 2023]

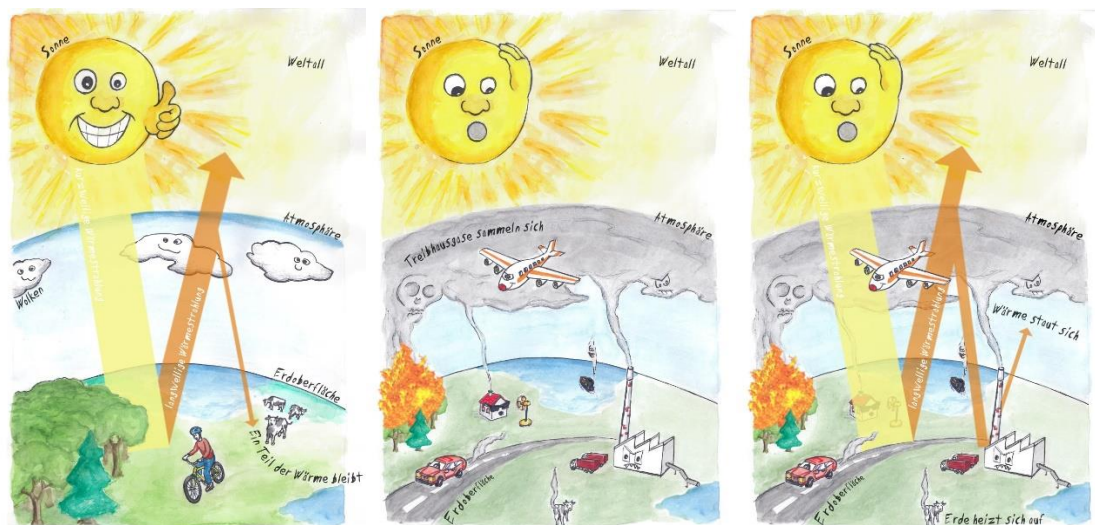
	<div style="text-align: right;">  <h3>Supplementary materials for case studies analysis</h3> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="border: 1px solid blue; border-radius: 10px; padding: 5px; width: 150px; text-align: center;">Sectors</div> <div style="border: 1px solid blue; border-radius: 10px; padding: 5px; width: 150px; text-align: center;">Impacts / Climate threats</div> </div> <div style="margin-top: 10px;"> <div style="background-color: #4CAF50; color: white; padding: 10px; border-radius: 10px; width: 300px;"> <p>Agriculture Biodiversity Buildings Coastal areas Energy Disaster Risk Reduction Financial Forestry Health Transport Urban Water management</p> </div> <div style="background-color: #4CAF50; color: white; padding: 10px; border-radius: 10px; width: 300px; margin-left: 20px;"> <p>Droughts Extreme temperatures Flooding Sea level rise Storms Water scarcity Biodiversity loss Endangered vulnerable population</p> </div> </div> <div style="margin-top: 10px;"> <div style="border: 1px solid blue; border-radius: 10px; padding: 5px; width: 150px; text-align: center; margin-left: 100px;">NbS solutions</div> <div style="background-color: #4CAF50; color: white; padding: 10px; border-radius: 10px; width: 500px; margin-left: 100px;"> <p>Solutions that are inspired and supported by nature, which are cost-effective, simultaneously provide environmental, social and economic benefits and help build resilience (European Commission)</p> </div> </div> <p>Afterwards the groups gather to the plenary and present their findings within 30-35 min. The participants are encouraged to discuss the proposed solutions and suggest the additional ones if they see any.</p>
Wrap-up	<p>After presentations round, the participants are asked to share their insights:</p> <ul style="list-style-type: none"> ● Have you ever practised any of the climate change response strategies in your life? Which ones? ● Which of the strategies (adaptation or mitigation measures) do you encounter more often in daily life? Why is it so? ● Do you see any climate challenges in your region which need adaptation solutions? ● Do you know any climate initiatives in your region, which promote climate-friendly practices and draw attention to the local climate issues? Would you consider joining them? If yes/no, why?
Want to know more?	<p>In order to be better prepared for the activity, in terms of climate change phenomena, but also typical behaviour of children and adolescents, while talking about climate change (coping strategies etc.), we suggest to explore the websites of NASA²², NRDC (Natural Resources Defence Council)²³, National Geographic Kids²⁴ etc.</p>

²² <https://climatekids.nasa.gov/kids-guide-to-climate-change/> [last accessed on 22 September 2023]

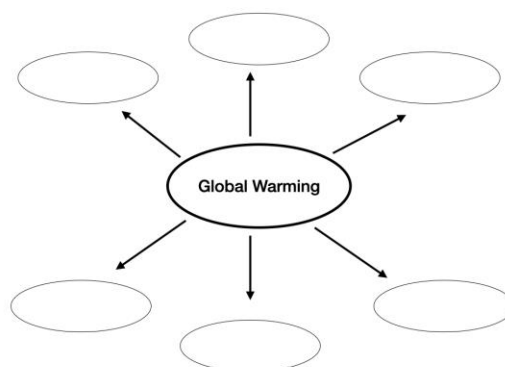
²³ <https://www.nrdc.org/stories/your-guide-talking-kids-all-ages-about-climate-change> [last accessed on 22 September 2023]

²⁴ <https://www.natgeokids.com/uk/discover/geography/general-geography/what-is-climate-change/> [last accessed on 22 September 2023]

Global warming



Main goal	To create an understanding about the main sources of greenhouse emissions and their anthropogenic nature.
Time required	30 minutes
Setting	Indoor or outdoor, enough space for comfortable work of 2 groups
Method	Interactive game
Materials	Flip-chart or a blackboard, 2 identical sets of cards
Preparation	Production of two identical sets ((7 printed colourful pictures (Energy, Transportation, Food waste, Agriculture and Land use, Buildings, Industry, Other energy) and 7 cards with percentage (25%, 20%, 18%, 14%, 10%, 6%, 7%) (preferably DIN A4, laminated)
Description of the activity	The facilitator starts the activity, while encouraging the participants to share their key ideas to the concept of Global Warming .



After some exchange to the topic, the facilitator features a broader picture with some numbers:

*According to latest climate scenarios, if the industrial pace continues, by the **mid** of the 21st century the humanity will face a temperature rise of 2 to 6°C and a 1 metre rise in the world's ocean²⁵.*

A facilitator asks participants about their opinions:

Do you think this is a lot or a little? Why do you think so?

Then the facilitator adds some facts to the discussion:

Climate change and its effects vary greatly from one region of the world to another. The results of rising global temperatures are rising sea levels, changes in the amount and pattern of precipitation, and an increase in deserts. Warming is strongest in the Arctic, causing glaciers, permafrost and sea ice to retreat. Other effects of warming include: increased frequency of extreme weather events, including heat waves, droughts and heavy rains; ocean acidification; and species extinction due to changing temperature patterns. Important impacts for humanity include threatened food security due to negative impacts on crop yields (especially in Asia and Africa) and loss of human habitats due to rising sea levels. Sounds pretty threatening, doesn't it?

As mentioned earlier, the increase in the amount of greenhouse gases in the atmosphere, in particular CO₂ gas, contributes to the increase in the temperature of the planet. We all know from biology that the land and the ocean are also suppliers of carbon dioxide, but they also absorb it: plankton in the ocean and plants on land. But now the ability of natural absorbers of greenhouse gases is becoming insufficient, plants simply cannot cope with anthropogenic emissions and they are accumulating in the atmosphere.

The facilitator encourages the participants to brainstorm and add to the web of associations (see picture above) the main sources of greenhouse gases.

²⁵IPCC Sixth Assessment report. <https://www.ipcc.ch/report/ar6/wg2> [last accessed on 22 September 2023]

Once we agree that global warming nowadays is caused by human activity, we should be aware about the main sources of greenhouse emissions.

The facilitator adds the suggestions of participants about the most impactful areas of human life, which contribute the most to the greenhouse effect on the flip-chart.

Then the facilitator demonstrates 7 pictures, illustrating the most impactful sources: Industry, Energy Production, Households, Waste, Land use, Transport, Agriculture and attaches them with pins or magnets next to the ideas of participants. If some of the sources were missing, the facilitator explains its role in the global GHG emissions.

Electricity & Heat: This is power plants, steam plants, industrial sources of electricity and heat — this isn't your use of heat or electricity at home. Burning of coal, natural gas and other fossil fuels is the largest source of greenhouse gas emissions worldwide. Switching to natural gas is an improvement over coal, but a transition to zero-emission sources of energy and heat (solar, wind, geothermal or nuclear) is needed to fully clean up our energy system.

Agriculture & Land: Roughly one-fifth of all global greenhouse gas emissions come from our use of land, mainly from deforestation and emissions from livestock. This also includes fuel used for agriculture, forestry and fishing, direct soil emissions and forest fires.

Industry: Manufacturing products for today's world produces a lot of greenhouse gases. Metal production, chemical manufacturing and use, cement production and numerous other products from paper to semiconductors are significant contributors. And it's not just the process of making something, it's the waste we create in the process that also adds to the problem.

Transportation: Traffic jams. Smoggy cities. Perhaps the most visible source of emissions comes from transportation. But we don't see all of it: Aviation, rail and refrigeration in transport all contribute to the greenhouse gases from transportation, adding up to 14 percent of global greenhouse gas emissions. Electric cars are on the rise, but for these to be truly green depends on a clean source of electricity.

Other Energy: Even before we burn fuels, manufacturing and moving them around add emissions to the atmosphere. Petroleum refining to make fuel and other products, and fugitive emissions from leaking pipelines — particularly methane leaks, a gas that is roughly 25 times as potent a greenhouse gas as CO₂ — are serious and challenging issues.

Food Waste: Did your parents always tell you to finish your food? They were right. Food waste starts well before it leaves the farm, and continues through distribution, storage, at markets and restaurants, and all the way to your kitchen.

Buildings: Energy used in commercial and residential buildings, including refrigeration and air conditioning, and even fire extinguishers, contributes a considerable percent of global emissions. All together, buildings emit roughly the same amount of greenhouse gases as the entire country of India. This is an area where we can all have a direct effect every day, starting in our homes and businesses.

Then the facilitator encourages participants to divide in two groups, hands in one set of cards (7 pictures + 7 cards with percentage) for each group and asks the groups to match the pictures with the appropriate percentage of GHG emissions and elaborate ideas which source provides the largest number of greenhouse gases in the atmosphere and which the least number. Each group works about 15 min with sets of cards (7+7) and then presents their findings.

It is important that the whole group participates in the discussion process as actively as possible and, even if there are conflicting opinions, that the group makes a collective decision about the poster percentages in the discussion process.

The facilitator assess the findings, asks what were the groups' considerations by matching and reveals the results of the study, based on IPCC 5th Assessment Report (2014) and UN FAO Food Wastage Footprint (2013)²⁶



Wrap-up

- Are you surprised by the result?
- What surprised you most of all?
- How would you cut the GHG emissions at a household/individual level and at a city/municipality level?

Want to try more?

Online-version of the activity:
<https://learningapps.org/display?v=p9dby2isk20>

²⁶ <https://www.universityofcalifornia.edu/news/where-do-greenhouse-gas-emissions-come> [last accessed on 22 September 2023]

Nature education

How to create a good outdoor workshop?

If you create a program for people, especially children and youth, imagine your workshop like a movie. Also your activity in nature needs a dramaturgy. It needs highlights, relaxing and thoughtful moments and finally a happy end. Maybe the following structure will guide you through the preparation steps.

Stage 1: Awaken Enthusiasm by your participants

- through a game
- a story
- a surprising beginning of the activity

Stage 2: Focus Attention & getting into the topic, to the area where we are at

- games
- a story
- a meditation
- focusing on something and connecting it to a story
- a song
- a poem

Stage 3: Direct Experience

Don't talk too much; don't try to explain too much in advance. Make it possible that the participants do have a direct experience in and with nature. Try to arrange the activities that way so that the participants...

- know what to do
- are getting surprised
- are becoming active by them self
- are becoming creative
- are from time to time team-working with others



Stage 4: Share Inspiration & Experiences

Also if everybody did the same at the same place and at the same time, everybody is gathering different experiences, impressions and thoughts, is noticing different things in nature. Come together from time to time, sit in a circle under a nice tree for example and let the participants share their experiences and thoughts with each other. Often it happens that participants just understand and notice their experiences & emotions, while sharing them with others.

Stage 5: Putting the experience into a bigger frame Explain how things are connected in an eco-system, how human beings are influencing the balance of nature. If the participants became interested, you also have the chance to explain more complex things in a theoretical way.

What are our goals? What do we want to reach while taking kids to nature?

Our goals are for example:

- that people do know more about nature
- that they do know more about how things are related to each other in nature
- that they get an understanding how human beings are influencing nature
- that they understand that nature is important/valuable for human beings and our well-being today and in future
- that nature is valuable because of itself not just because it is useful for us
- that people are getting emotionally connected to nature
- that they become more interested in nature
- that they are having a good time in nature and afterwards good memories about their time in nature which helps to create a positive attitude towards nature
- that especially kids spend some time in nature, without Computers, TV and Gameboys, enjoying fresh air, the weather
- that people are spending time at a quiet and peaceful place, relaxing
- that kids are losing their fear against deep forests, spiders or other animals
- that people like to go again into the nature
- that people get to know more about your home area
- to have fun
- to become curious (in general and about specific topics)

Create a magic moment

“There is a time in the age between 5 – 12, when an impression, probably just a short one for some seconds, can stay forever in the heart of the person.”

Try to create a happy impression during your workshops in nature for your participants. I do like to call them the magic moments, the highlights during such an activity, connected with your main message

More activities and online resources on nature education you may find here: <https://www.sharingnature.com/nature-activities.html> [last accessed on 22 September 2023]



Land art workshop

Main goal	Build deep connections and empathy to nature through collaborative co-creation of art-works in nature.
Time required	90 minutes
Setting	Outdoor, a facilitator together with a working group finds a nice landscape (a forest, a park, a green zone or a beach) in the neighbourhood and arranges a place nearby, where the participants could be gathered, introduced in the concept and main steps of land art creation.
Method	Interactive workshop for 15-20 participants
Materials	<p>The introduction into land art can be made orally (no projector and laptop are needed) with some nice pictures printed in advance as illustrations (pictures can be replaced with books about land art)²⁷</p> <p>for the purposes of land art creation you can use:</p> <ul style="list-style-type: none">only natural materials, which can be found in the chosen area, like sticks, stones, pebbles, sand, leaves, cones, flowers etc.or some handicraft materials, which can be used in nature without damaging it: bundles of household strings, scissors, natural/biodegradable glue, eco-friendly acrylic paints. There can be used also garden tools like handsaws, but very accurately, only for already broken twigs or trees.- cameras (mobile phones are also ok) for documenting the artworks. <p>For "Meet a tree" exercise - 10 blindfolds.</p>
Preparation	Choose a proper place, print out land art pictures for introduction

²⁷ Some pictures and ideas for activities may be taken from these resources:

<https://www.landartforkids.com>

Description
of the
activity

Land Art - What? Where? Why?



1 step. Introduction to the concepts and ideas of land art. (For inspiration some ideas from references can be taken). In particular, the most important thing that should be said is that Land Art is the perfect way for all the family or the community to get creative together. Whatever your age or ability are, you are able to capture the moment of beauty in nature here and now and make it your own. Land art is not just about using natural things, like pebbles, leaves or flowers, to create artworks, but also about looking deeply and finding a proper environment, in between twigs, grass or dunes. Sometimes shadows or sunlight help you to achieve a perfect impression, but just for a few seconds, when you have to be ready with your camera.

2 step. In order to get participants on the right track, an exercise “Meet a Tree” may be provided before the actual Land art creating. The facilitator chooses a place with a considerable number of trees and divides a group into pairs and has one of each pair wear a blindfold. The seeing player leads the blindfolded player to a special tree, one that has intriguing characteristics. Upon meeting the tree, the blindfolded player feels the texture of the tree’s bark, sees how big the tree is by putting his arms around it, and explores the tree’s branches and leaves. The guide can silently guide the player’s hands to interesting places on and around the tree.

After getting to know their trees, the blindfolded players are brought back to the starting point, where their blindfolds are removed. They then try to find their tree. Most adults and children who have walked blindfolded thirty yards or more to a tree, can find it later with open eyes. Leaders should, however, adapt the distance to the age, mobility, and the ability of the players to orient themselves in nature.

Optionally some exercises of deeper connection with nature can be suggested (for inspiration see J. Cornell nature awareness activities²⁸).

²⁸ <https://www.sharingnature.com/nature-activities.html>

	<p>3 step. After the participants get back into circle, the facilitator explains step-by-step strategy of immersion in the natural space around:</p> <ul style="list-style-type: none"> ● Explore your chosen location. Take a good look at all the different shapes, colours and textures you see. ● Collect materials to create your art. Depending on your location these might include pebbles, small rocks, shells, seaweed, driftwood, leaves fir cones, acorns, sticks, dandelions, daisies, leaves and anything else you come across. These things can be made into mandalas, spirals, shapes, animals, or patterns.... ● Find an interesting place to make your art. ● Look at the materials you have collected and let your imagination run free. Remember there are no rules in land art. ● Create some art ● Take pictures, using various perspectives, play of the light and shadows to record your creations. <p>4. step. Build the groups / pairs or suggest participants to work individually for the creation of land art objects.</p> <p>5 step. While participants are creating their land art objects, the facilitator is walking among them, looking where to encourage or to assist participants in their work.</p> <p>6 step. After 40 minutes, the participants are invited to get back into circle and share what they have created so far, is the artwork already done or it is still in progress. The whole group may go along the sites where the artworks were created or arrange the time when they can meet again to show each other their creations. Additionally, a meeting can be arranged, where the most beautiful pictures of land art works will be presented and participants will exchange their insights after the workshop.</p> <p>! Do not forget to clean the natural area after the workshops of all kinds of handicraft materials and trash. The land art works can stay as long as the participants wish.</p>
Wrap-up	<p>Possible questions for reflection:</p> <ul style="list-style-type: none"> ● What helped you to set into motion and find a creative mood? ● How did you come up with the idea of the artwork? ● What natural materials did you find the most responsive to your idea? ● How did you prefer to work: individually or in a group? ● Would you repeat this experience somewhere else, in other surroundings?
Want to know more?	<p><u>References:</u></p> <p>Richard Shilling, Land Art, Blurb Inc., 2009</p> <p>Richard Shilling, and Julia Brooklin, Land Art For Kids. In the Woods, Blurb Inc., 2010</p>

	<p>Marc Pouyet, Natural: Simple Land Art Through the Seasons, Frances Lincoln, 2009</p> <p>Nancy L. Hill, Nature Whispering: 148 Simple Ways to have Magical, Mystical Experiences in Nature, Life Enchanted Press, 2011</p> <p>Joseph Cornell, Sharing Nature (R): Nature Awareness Activities for All Ages, Crystal Clarity, 2015</p> <p><u>Useful links:</u></p> <p>https://www.landartforkids.com/</p> <p>https://www.mommy-labs.com/creative-kids/art_craft_projects_kids/land-art-ephemeral-beauty-eternal-bliss/</p> <p>https://www.sharingnature.com/nature-activities.html</p>
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Natural symbols

Main goal	<ul style="list-style-type: none"> • State and explain one's own values with the help of symbols • Acknowledge the subjective nature of personal values and their function
Time required	45-60 minutes
Setting	<p>Indoor + outdoor (park or a green area)</p> <p>This exercise may be a part of a longer activity, like a campaign, a barcamp, international youth camp etc.</p>
Method	Interactive workshop for 15-20 participants
Materials	Object chosen by the individual (which they searched for or came across in nature), serviettes, flip chart paper, markers.
Preparation	Paper serviettes, a big flipchart paper or a white paper tablecloth, markers.
Description of the activity	<p>The participants are introduced into activity with an invitation for a 5 minutes self-reflection round - What are the things which are important for me today? What I value today as an active citizen or a good learner etc. (whatever role they identify themselves most of all at the present situation).</p> <p>Then the participants are asked to seek in the natural environment a small object that can symbolise the values important for them now. The facilitator should stress that their search must be independent and well thought out. The participants have 15-20 minutes for their search.</p> <p>Once found the object should be wrapped in a paper serviette and brought into the group room. However participants are allowed to take photos, if they don't want to damage nature and present their objects later as pictures.</p>

The participants sit in a circle in the middle of which is a large blank piece of paper. One person initiates a round of presentations: the object is carefully unwrapped, shown to the others and the mental connection to the object is explained. After each presentation the object is carefully laid on the paper in the middle. Each brief presentation can be rewarded with applause. The presentations must be heard in an attentive and supportive manner. The participants or the facilitator may write the named values next to the laid objects.

In the course of this exercise an interesting and meaningful image emerges with a rich potential for raising awareness in a way that deepens mutual understanding: diversity, differences and areas in common, confirmations and surprises in relation to others' assessments, creative forces in the group, varied and stimulating associations. Finally, the image that emerges is submitted for group reflection, including on the process of its emergence (e.g. the ways in which the objects of others were dealt with, the effect of attentive listening, and also of any disruptive behaviour). At the end of this sequence, the participants might take a photo of the image they created together with their phones.




Wrap-up

Possible questions for reflection:

- What did you feel while looking for a proper natural object?
- Did you think about some properties of the object (colour, size, how it feels in your hand)? Which ones?
- Have you been guided by some popular symbol ideas, like stone for strong character, or you tried to embody your own thoughts?
- What did you feel during the sharing round? Did you like the way the objects were presented?
- Have you revealed something more about yourself through this activity? Would you like to share your insights?

Ecosystem - Game

Main goal	To develop an understanding how animals and plants are connected to each other in nature by eating and being eaten. An opportunity to introduce the term "eco-system", „Web of life“ and “Food chain“.
Time required	15 - 20 minutes
Setting	Indoor or outdoor. The participants build a circle and one of the participants gets the ball of wool.
Method	Interactive game for 6 - around 10 participants (one circle)
Materials	One ball of wool (or two if you split the participants in two circles)
Description of the activity	<p>The first person who holds the ball of wool in hands needs to decide what animal or plant he or she is and whom he/she eats or by whom he/she is eaten. Like “I am a small bird and I am eating a worm”. Now this first participant needs to throw the ball of wool, by keeping the end of the wool, to another participant by saying “I am a little bird. You are a worm and I am eating you”. This chosen worm is catching the wool-ball. Now he/she needs to decide whom the worm is eating or by whom the worm is also eaten. For example “I am a worm and I am eating a leaf from a tree”, throwing now the wool-ball to the chosen “leaf”, by holding one piece of the rope until everybody is part of it and everybody is a plant or an animal holding the rope together.</p>  <p>Now it should look like a web where everybody is connected directly through the rope with two other participants of this game. It now looks like an eco-system-web.</p>

	<p>The next step of the game is when one of the animals or plants disappears (becomes extinct). For example, a facilitator chooses a random person and asks him or her to pull the rope a little bit. This movement should display the impact of “extinction” on other animals, in other words: if you are not part of the eco-system anymore, it effects the ones you eat or the ones who eat you. The two who are directly connected with the one who pulls, feel through the rope that you are pulling at it. If they feel that they are effected, they also need to pull what is again effecting others. In the end every participant in the circle is pulling the wool-rope. This demonstrates, everybody is connected in an eco-system. That why it is important to protect everybody in nature, because everybody is needed to keep the eco-system stable. If your participants are older or if your program is dedicated to a specific ecosystem, you can also appoint an ecosystem like "forest" and that all the participants (chosen plants and animals) should belong to this ecosystem.</p>
Wrap-up	<p><u>Possible questions for reflection:</u></p> <ul style="list-style-type: none"> • How did you feel connected to the web (ecosystem)? What should you do in order to stay in the system? • How did you feel when you became “extinct”? • What was the most difficult/easy for you in the game? • Could you provide any examples of impacts of the extincted/endangered species on other species or the natural environment?

Education for Global Goals

Global Goals and me

Main goal	To familiarise young people with a concept of SDGs (Sustainable Development Goals) as a global contract to safeguard the environment, eradicate poverty and ensure that all people live in prosperity and peace today and in the future.
Time required	60 minutes
Setting	Indoor, room with a projector and laptop, number of chairs should be equal to the number of participants.
Method	Interactive workshop for 15-20 participants
Materials	<ul style="list-style-type: none"> • • 2 cards “Absolutely Don't Know” and “Good Knowledge of the SDGs”, • Set of green, yellow and red cards
Description of the activity	<p>Step 1: Introduce Yourself Tell students your name, where you're from and which organisation you work for. Invite students to introduce themselves and ask whether they can share some volunteering background, if any.</p>

Explain that you are here to talk about the Global Goals or the Sustainable Development Goals (SDGs).

SUSTAINABLE DEVELOPMENT GOALS



Step 2: Warm up

Ask the participants to line up from “Absolutely Don't Know” to “Good Knowledge of the SDGs” or show a green card if you know the SDGs well, a yellow one if you have heard something about the SDGs and a red one if you have never heard of the SDGs. Say why you think so.

If no one has heard of the concept “Sustainable Development Goals” before, reassure the class that they will all know the meaning by the end of the lesson.

Step 3: Introducing the SDGs

<https://www.bookwidgets.com/blog/2019/12/10-ready-to-use-lesson-plans-on-the-sustainable-development-goals>

Explain to students that they are now going to watch an animation to learn more about the SDGs.

The United Nations introduced the Sustainable Development Goals (SDG's) in 2015 as a global plan to reduce poverty, protect nature and enable everyone to live in peace and prosperity. But what would a sustainable world look like? This short video introduces these 17 SDGs:

Whilst watching the animation ask students to note down any words they don't understand or questions they have about the Goals - you can go through these with them at the end of the video.

These 17 Goals of sustainable development should be achieved by the year 2030. That's just 7 years from now. To achieve the goals, countries, companies, and citizens should all work together, and share the responsibility to spread the word about them.

In 2015, leaders from all 193 countries of the United Nations made the most ambitious plan that has ever been agreed.

	<p>Step 4: Connecting the SDGs to Real-Life</p> <p>And now we would like to present to you our activities (projects, actions, etc.), which our organisation has initiated and implemented together with a local community. A presentation with short factsheets and relevant photos about the local projects will be shared for students.</p> <p>Step 5: SDGs discussions</p> <p>And now we want to invite you for discussion in a “speed dating” manner on following topics:</p> <ol style="list-style-type: none"> 1) which Goals you personally consider the most important for yourself 2) which Goals you think are important for your school/university/local communities and why 3) the achievement of which Goals is important for your city/municipality <p>Speed dating flow</p> <p>The whole group is split in two in a random fashion. One half of the participants is arranged in a circle of chairs facing outwards, the other half in an outer circle of chairs facing inwards. This arrangement puts the participants face to face in twos, although in the course of the exercise they will continue to change places. Discussion intervals are to be determined by the moderator. Reshuffles are made on an agreed signal (e.g. the word “Change”). On the given signal the participants in the outer or inner circle move to the right (for one or two chairs), while those in the inner/outer circle stay put. An input can be discussed in the course of two consecutive reshuffles.</p> <p>Think-pair-share flow</p> <p>After the discussion, in order to connect further SDGs to the personal experience of participants, ask students how old are they going to be in 2030? At that time they might be of a working age. Ask students to think (individually), then in pairs (talk to the person next to them) and then share (talk to the whole class) about what they might be doing in 2030, what job they might have, what would they like to study or how they will spend their time? <i>How do you think we could relate your future life to the SDGs?</i></p>
Wrap-up	<p>Possible questions for reflection</p> <ul style="list-style-type: none"> ● Would you name one thing, which has surprised/inspired you today? ● How do you think, are there opportunities for an individual to contribute personally for achievement of Sustainable Development Goals? ● Would you name some activities, which you can do achieve SDGs <ul style="list-style-type: none"> - At your home - In your neighbourhood - At your school

Global Justice

Who earns and how much from my pair of sneakers?

Short description	This “game” shows where your money goes that you pay in the shop when you buy sneakers. In particular, this workshop is about what the workers who produce this shoe, mostly in Southeast Asia, earn. Can they make a good living from that and if not, who could improve something about their situation and how? The shoe is just an example here. T-shirts, pants, cell phones, the situation is very similar here.
Main goal	To explore the roots of the concepts “social and environmental justice”, “Fairtrade”
Time required	30 minutes
Setting	Indoor or outdoor (in a classroom, or in the city centre, e.g. in front of a shoe shop)
Method	Interactive game
Materials	<ul style="list-style-type: none">● Shoe puzzle picture (DIN A4)● Labels for the individual cost areas (retail, material, advertising, design, brand, transport, subcontractors, workers)● Two paper wage envelopes folded, one with 40-euro cents, one with 36-euro cents in it
Description of the activity	The opening question is: <i>Where were the shoes produced that you are currently wearing?</i>

The participants are asked to look in their shoes. Experience has shown that most of them participate. But, nobody should be forced. The small pieces of paper sewn into the shoe usually state where it was produced. Answers are collected. Above all, China, Vietnam, Indonesia, Cambodia and India are mentioned.



“50 years ago your shoes might have been produced in Europe. Probably 20 years ago in China. The production is now moving on, from China to Indonesia, Cambodia and Vietnam. Do you have any idea why? Exactly, it has to do with wages. Companies like to have their shoes produced where this is as cheap as possible. And it is cheap where wages are low. Relocating production to another country is easy because companies such as Adidas do not have to move. Because they do not even produce shoes themselves. You simply order from a local supplier, e.g. in China. If someone else does it cheaper, e.g. in Vietnam, then you get the next order. And since wages are now rising in China due to the general economic upswing in China, the corporations are looking for countries, where they can produce much cheaper. In Vietnam, wages are currently 2/3 lower than in China.”

Now let's see what happens to the money that someone spends on their sneakers. (Of course, the costs vary depending on the product. These are researched mean values).

The structure:

1. The puzzle pieces are distributed to the participants, who then puzzle them together on the floor or on a table so that everyone can see the shoe puzzle clearly. The participants stand in a circle around the puzzle.
2. Now, you briefly explain the cards (the brand, advertising, material...) and place them around the pieced-together shoe. All cards are part of a spending factor of the sneaker. So there is a card for every piece of the puzzle.



3. Now, it is a matter of assigning the cards to the puzzle pieces. Let's start with the largest piece of the puzzle. Now the participants should choose which card could belong to the largest piece of the puzzle. Now you can also say that this piece of the puzzle accounts for 50% of the final price. The correct answer is retail, which means the shop.

"Wow, I'll open my own store and sell shoes when I make that much profit. Half the money stays with me in the shop."

However, it is not so nice, because the 50% is not the net profit. "

Question to the participants: "What expenses does the shoe shop have?" Together with the participants, the following is collected: shop rent, wages for the salespeople, VAT (19%) in Germany, discount campaigns, electricity ... There is not so much remaining. The next largest piece of the puzzle is 13%. The participants think about which of the cards fits the next largest piece of the puzzle. Answer: The brand, e.g. Adidas, Puma, Nike.

About 8% of this is the net profit, which is then paid out to the owners / shareholders.

11% research and design. Of course, the shoe has to be designed and developed in such a way that it is as good and beautiful as possible. That is why a lot of money is spent on design and material development. 11 € or (11 %) of a € 100 shoe goes towards its development.

9% advertising. The industry spends € 380 each year on advertising for each of us. Of course, they add this € 380 to the products they sell. If you buy sports shoes for € 100, you will pay back around € 9 of the € 380. So you pay for your own advertising.

8% material. This is the first real thing you can touch and see. In this case, the material of a shoe costs eight euros (8 %). Normally the material would have to be more expensive. But the wages of those who manufacture and deliver the material are far too low. Because they are not paid fairly.

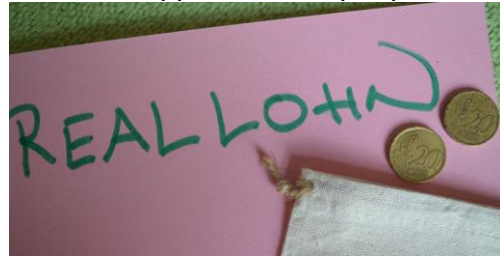
5% transport, import and export tax, port fees.

3.6% for the producer. This money goes to the producer of the shoes. He receives the money for the organisation, logistics, procurement of materials, the provision of the production hall and the machines. He also has to pay taxes from it. Not yet included are the wages for the workers who produce the shoes.

0.4% wages for the workers: To increase the "tension" a little, don't say the amount yet, but give someone in the group a wage packet with the words "What the workers in Vietnam get from the 100 Euros is here in the pay packet."

After the wage bag has been opened, the result is certain. 0.4% that is what the workers get proportionally per shoe. That is approx. € 0.40 per pair of shoes. So we don't yet know what workers in Vietnam get per month. I will tell you, a typical monthly wage is around € 180.

(<https://www.aseanbriefing.com/news/mindestloehne-in-den-asean-staat/>)



Ask the group:

“What do you think workers have to earn in order for their wages to be fair? So that you can live carefree: buy food, rent a small apartment, but no vacation trips, no car, no separate room for the two children, but maybe you can save money for a radio, buying exercise books for school is also possible. What do you think, what else do you have to get in addition to the 180 €? Life is cheaper in Vietnam than it is here, rents are lower, and groceries cost less.”

The participants mention a few sums, but you do not comment on them at this point. Church organisations calculated what still had to come on top.

One participant is given a second wage packet. “Take a look at the second wage packet. What is in there should be on top of each shoe, on top of the € 0.40!

34 cents. So the workers would have to get 76 cents per pair of shoes instead of 40 cents and it would be relatively ok. This means that the monthly wage



would roughly double from € 180 to € 350. That would of course be a huge difference for the workers. For the price calculation of our € 100 sneaker, the difference is a joke.

Ask the group: “Why doesn't this happen? Why do the workers only get 40 cents instead of 76 cents for a 100

Euro shoe? ”

You initiate a small discussion and can ask more specifically:

What can workers do themselves if they feel they are treated unfairly?

You wait for answers and otherwise you can make suggestions yourself. E.g., the workers in Vietnam could go to the boss and complain or they could strike? You wait and try to get the participants to comment on your suggestions.

Then you explain: "Anyone who strikes or protests is usually fired. There is no right to strike as we do have. Anyone who loses his or her job receives little or no financial support from the state, or only for a few months. After that, you do not get anything. Therefore, the workers hardly have a chance to defend themselves.

The brand, what could Adidas do, for example?

In fact, that would be the easiest way to go. Adidas pays more and demands that the more money paid reach the workers. And they control that too. However, they do nothing, or far too little. Otherwise, the workers would earn more.


We remain consumers. What can we do?

Boycott! Do not buy Adidas shoes anymore (This is often mentioned as an idea. That would actually be a possibility. But, this not only harms the brands and producers, it also causes workers to lose their jobs. On the other hand, a successful boycott can quickly lead to changes.)

Buy fair shoes. (That would be a very good alternative, but it is difficult because there has been little choice so far - but that is currently changing.)

What everyone can do very quickly: Asking questions in the shop: E.g., "I like the shoes very much. Can you tell me what the workers who produced these sneakers are being paid for? Do they get paid for their overtime? Do they have health insurance?" The sellers will likely say they do not know. Then you can ask: "Who can answer my questions?" For example, you can leave your email address there and ask for information. That will definitely become a conversation among colleagues. Whenever customers ask, it becomes an issue in the business and in the group. Alternatively, ask your questions by email. Write to the brands directly. Be curious about the answers, you will certainly get one. It may not be that meaningful, but that does not necessarily matter. It is important that the companies notice that more and more customers want a product not only to be cheap and good, but also to have been produced fairly. The corporations have become during the last years very sensitive to this issue. Because the saying "the customer is king" is not for nothing.

Eco-city Workshop

Main goal	<p>To familiarise young people with different aspects of a sustainable and climate-friendly lifestyle. The aim is not to explain things, but to motivate the workshop-participants to think for themselves, to weigh up different aspects of a topic and to form their own opinion.</p>	
Time required	90 minutes	
Setting	Indoor	
Method	Interactive game 20-25 participants	
Materials	<ul style="list-style-type: none"> ● Flipchart/blackboard ● A2 papers (one per group – for creating the city plan they will later on present) ● A3 papers (one per group – for brainstorming, putting down first ideas) ● lots of colours & pencils ● One Info with data and graphics easy to read and understand about each topic (Energy, Mobility, Waste ...)* ● A presentation about climate-friendly cities to show that a lot of good ideas already exist in reality* <p>*Infos and also the presentation will be provided by JANUN Hannover e.V.</p>	
Description of the activity	<p>Step 1. What does a city need? (5 minutes)</p> <p><i>What do you need for a city to function with a good life quality?</i></p> <p>Brainstorming together with all participants (Brainstorming means first to write down everything that comes up without commenting and judging). The best is to write everything down on a blackboard or a big sheet of paper. It is important that everybody can see what is written down, so make sure you write big enough.</p> <p>The best way is: One moderator moderates the collection of ideas and a second person writes them down on a flipchart.</p> <p>For example what the participants might say:</p> <ul style="list-style-type: none"> ➤ Houses for living ➤ Trash management ➤ Electricity ➤ Mobility/Traffic/Streets 	



- Schools / Education
- Green Areas / Parks
- Police
- Health System
- Government
- Food
- Shops
- Water
- Places for culture
- Places for sports
- Hotels
- Animals
- Religious places (mosque, church ...)
- Social institutions
- Working places for the people who live in the city



Step 2. Discussing the results of the brainstorming (5 – 10 minutes)

Now have a look together at everything that was collected.

Maybe something important is missing in the list the participants have created?

For example the moderator may mention some things, if the participants forgot about them:

„Well it looks like people smell pretty bad in this town, do you have an idea why?

Answer of participants “They can not shower because we forgot water.“

„Yes, right, let's add it to the list“

Maybe an interesting or a funny or a strange idea came up that you can/should discuss together with the participants?

If you do have more time and if the participants are motivated and talkative, you can also start a discussion: ***What is most important from the things you named? What is less important for a city?***

Probably in the end you will find out that it is difficult to say what is more or less important. That is also fine and a great learning-experience and result.

Step 3. Working in groups to understand & create eco-friendly solutions for a city/town/village (minimum 35 minutes)

The moderator may group all city concepts into six topics: **Energy, Mobility, Green Spaces, Housing/Living, Nutrition, Waste.**

The moderator suggests participants to get divided into six groups, randomly or by interest or the moderator decides whom to put together in groups, so that they will function well.

Each group will concentrate on one topic.

Now each team has time (maybe 30 minutes) to create a city with the focus on their subject.

For example: The „Mobility Team“ will now create and draw a city/town/village with a sustainable and climate-friendly mobility concept.

They will discuss and decide to have cars in their city or not and if so what

kind of cars? What kind of public transport will exist in their city and will it be maybe for free? To promote eco-friendly mobility maybe free bicycles are standing around all over the city/town/village?

It is important to give some data about the place the participants should create. For example: If the task is to develop a transport concept for a city with 800,000 inhabitants, a metro can be a good idea, but in a town with 5,000 inhabitants it needs something else, but not a metro.

Each group gets information about their topic (not more than 2 A4 pages with texts and graphics with the most important information about their topic that they are able to read and to understand easily in about 10 minutes). This information gives them some background-information that can help them to develop their concept for their climate-friendly city. At the same time they are learning something about the topic.

Each team gets a precise description of their task, with some guiding questions.

As the groups develop their ideas and design their city plans, it is good to go from group to group to see if the tasks have become clear. Sometimes a good question or some motivating words are helpful. It also keeps the participants from talking about something completely different, e.g. last weekend.

Step 4. Presenting the ideas (20 minutes)

Now all teams come together and each team presents their own idea about their topic, for example which kind of mobility concept they would like to suggest for the eco-city.

They present one after the other.

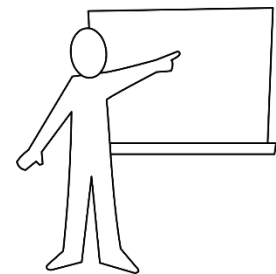
Each presentation is discussed together.

The moderator encourages other groups to add comments, new ideas and suggestions.

Option 1: After a short discussion/exchange the plenary just moves on to the next topic

Option 2: All participants decide together, for example if they agree on the mobility concept for the eco-city that the group developed, and maybe including improvements and changes of the whole group.

Then the next group presents the concept of their topic, for example electricity.



Step 5. What can I personally do for a more eco-friendly city? (10 minutes)

Brainstorming after some sum up:

„I myself or us as a group, we are not able to build an eco-city. But some of the ideas we created today we are able to implement as a group or individually. We are not able to implement a mobility concept in our city but I can start using my bicycle more often, we can do a workshop teaching others how to fix a bicycle. We can write to the mayor to ask to lower the

prices for the bus tickets and so on. What are we able to do in our own town for a better future, this is the topic of this open discussion?
Again the ideas will be written down and discussed together.

Further ideas

Maybe some of the ideas are so good that the participants might be interested to implement them. Or all ideas can be documented and sent to the local parliament or mayor.

Also the developed concepts/city-plans could be presented to the major or local politicians.

Step 6. Great ideas that have already been implemented (10 minutes)

A final presentation with pictures of existing projects is presented to show the participants that it is possible to make a change, that climate-friendly cities are possible and many good ideas have already been implemented all over the world.

Extra step

An option is also that the participants choose a name for their own created EcoCity

- Collecting all kinds of name-ideas
- Voting for the best name

Everybody has one vote.

The two or three names with the most votes are in the final round. Now everybody can vote again, now between the two last (most popular) options.



Creathon - Ideas into Actions

Short description	<p>This activity is a reduced variant of Hackathon - a marathon, where ideas are generated and prototypes of their products are created and presented in a most appealing way. The participants will learn how to present their ideas and solutions, how to create Action plans and consider resources, how to present a visual image of their idea. The real Hackathon alike there is a board of mentors who help young people, guide them and assess their final presentations.</p> <p>Project stages:</p> <ol style="list-style-type: none"> 1) intensive exchange of information on SDGs issues in participants' countries and around the world 2) brainstorming and discussion of ideas of socially-oriented and environmental projects for the environment in teams 3) the presentation of solutions as a pitch, Action plan and visualization, which would allow to launch the project in the neighbourhood.
Main goal	Empowerment of teachers and learners to find creative solutions for local challenges within SDGs context.
Time required	6-8 hours
Setting	Indoor or outdoor, big room for 30 people, chairs and tables for group work
Method	Creathon (20-30 participants)
Materials	<ul style="list-style-type: none"> ● Flipchart/blackboard ● Flip chart paper, markers (various colours) ● Badges ● Adhesive tape, pins, magnets
Preparation	<ol style="list-style-type: none"> 1) Invite mentors on social advertisement, social and environmental projects development and pitching. Explain to the experts that they will participate in a Helpdesk for young change-makers and assist them in developing their first project ideas. As mentors they will listen to pitches, visit the teams during the teamwork round, consult young pitchers, designers and managers during two check-points, and assess the final products of the teams project work at the final stage. 2) Organise a registration desk before the actual activity. Prepare a flip-chart or a poster with an announcement "Registration", draw a poster with Creathon roles, prepare badges and markers of 4 different colours on the registration desk. 3) Prepare in advance four certificates for the best teams (see the nominations below)
Description of the activity	<p>Preparatory part. A project idea</p> <p>1-2 days before the Creathon, the trainer announces the group about the activity (its goals, duration, where and when it will take place) and asks them to consider individually or in teams the issues they see in the environment and possible solutions/ ideas (the participants can be guided by SDGs challenges). There can be more than one idea per participant on</p>

how to contribute to the achievement of one or a bundle of SDGs in the neighbourhood. The ideas will be presented in the Ideas Round of Creathon.

Day of event
Registration

The arriving participants are asked to come closer to the registration desk. There they will see a sheet of paper with Creathon roles. The participants are encouraged to try-out themselves in one of the roles of the today's event: **Visionary, Pitcher, Designer, Manager.**

- **Visionary** - generates ideas, develops various future scenarios
- **Manager** - responsible for an Action plan, considers activities and resources
- **Designer** - develops a visual image of the solution
- **Pitcher** - makes a final convincing elevator-pitch about the challenge solution

Each role has a specific colour. So, after having made a choice, participants take a badge, write their name on it and colour it with an appropriate colour (i.e. Visionary - green). When everybody, including participating teachers, parents or other stakeholders, are ready and have taken their seats, the introductory presentation can start.

Introduction: Creathon can start

The participants are welcomed by the trainers and other relevant stakeholders, invited, if necessary.

They get to know the Helpdesk – other trainers, invited mentors on social advertisement, social and environmental projects development and pitching. Participants are introduced with the idea and main rules of Creathon format. During and after the presentation, the participants are encouraged to ask questions and clarify concepts.

Idea of the Creathon:

This activity is a reduced variant of Hackathon - a marathon, where ideas are generated and prototypes of their products are created and presented in a most appealing way. The participants will learn how to present their ideas and solutions, how to create Action plans and consider resources, how to present a visual image of their idea. The real Hackathon alike there is a board of mentors who help young people, guide them and assess their final presentations.

Creathon rules:

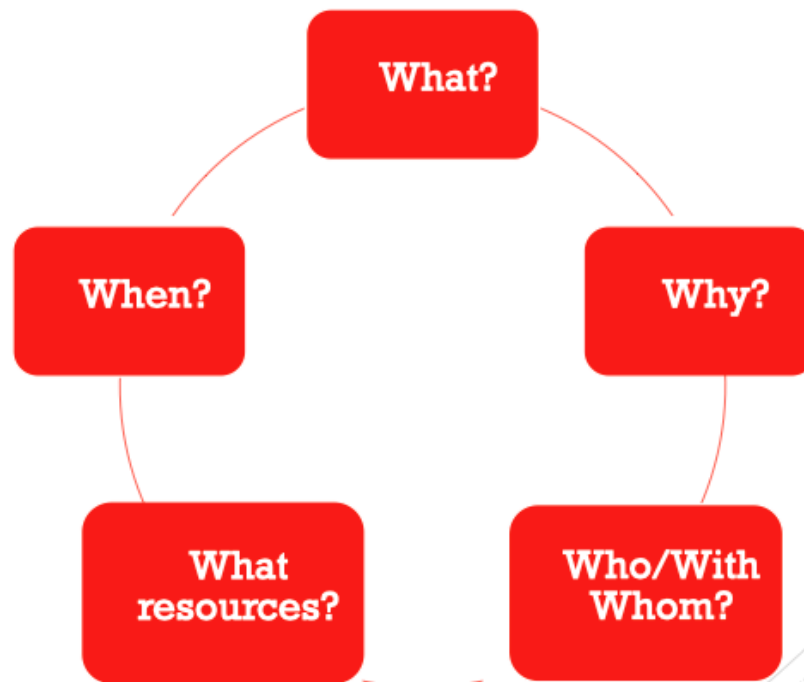
1. *Time frame* is limited to 6 hours.
2. *Roles* (Visionary, Designer, Manager, Pitcher) are there to help to build a coherent team and divide the responsibilities.
3. *Schedule: Ideas Round, Open Space and Teams Round.*

In the Ideas Round the volunteers present (pitch) the initial project ideas, and during the Open Space they recruit the team. Teams with min. 4 roles pass to the next round. 1 person can take max. 2 roles.

In the Teams Round established teams work over their projects and have *two check-points*: intermediary (to evaluate the progress of the

	<p>teams to date) and final (to present the final products of the team work).</p> <p>4. <i>3 final products</i>: Pitch (1,5 min), Action Plan, Visual presentation (video, poster, animation etc.)</p> <p>1 step. Ideas Round After the presentation, the trainer announces the Ideas Round and calls for pitching ideas, generated in advance. The participants are encouraged to present (pitch) the project ideas, related to humanitarian/social issues in the neighbourhood or to achievement of relevant SDGs. The presenters should make clear which roles they already have and which roles they still need in the team, in order to produce 3 final products. The ideas are not criticised and accepted as they are. Each idea gets approved by the Helpdesk and audience and all pitchers get a number in an order of appearance.</p> <p>Open Space Then, upon all presentations, the pitchers generate posters with the name of their idea and the roles, which are still missing in the team. In 10 minutes after the Ideas Round starts an Open Space, where the pitchers have to promote their ideas and recruit the team. Other participants walk around from poster to poster and make a decision which team they would like to join.</p> <p>After the Open Space the newly-built teams one by one come to the Helpdesk and confirm the availability of all roles and their readiness to start work. Those pitchers, who did not manage to recruit all roles, may join other teams.</p> <p>After everyone takes seats in the room, the moderator explains in detail the requirements to the three final products and presents again mentors on pitching, project management and video-making.</p> <p>Requirement to 3 final products:</p> <p>1. <i>Pitch</i> should not be longer than 1,5 min., audience-oriented, problem-based and preferably story-based, this speech should answer the questions: <i>Why is this idea important to us?</i> and <i>What will be changed for the better after implementation of the idea?</i></p> <p>Obligatory part of the pitch – presentation of the team.</p>
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Pitch of project idea



2. *Action plans* are to be presented as a steps, sequence or as a table or in any other form at a discretion of teams, but they must contain answers to four questions:

What are we going to do?

Who are we going to work with?

What resources do we need?

When and how are we going to implement the project steps?

Action plan

Project steps	What activity	Who	What needed	When
1.				
2.				
3.				

3. The visual product should appeal to the audience, be well- designed, it can display the project idea as a mindmap or as a picture, or it may be a kind of advertisement.

2 step. Teams Round (with mentor sessions)

Then the Teams Round is announced. The teams find themselves comfortable in the isolated rooms or around the tables in the corners of the big shared room. An hour later the teamwork has started, the integrated mentor sessions are taking place. Invited mentors on pitching, social and environmental projects marketing, project management are visiting teams, checking their progress and consulting upon demand. Two hours and a half after the start of the teamwork, the responsible members of the teams are called to thematic check-points on pitching, design and project management. Then according to received recommendations, the teams finalise three final products for the final presentation round.

Final presentation of project ideas

At the final check-point the teams present in turn the developed project ideas as three final products: pitch, action plan and visual product. After each presentation, follow the comments and feedback from the invited mentors (Helpdesk), other teams and school community.

After the presentation round the Helpdesk takes time (10-15 min) to decide about the winners and nominates the project groups on the nominations as follows:

- Best Pitch
- Best Teamwork
- Best Visualization of the project idea
- Best Action plan

	It is recommended to prepare in advance the certificates for the nominees and write down the names of the teams during the last meeting of Helpdesk.
Wrap-up	<p>Final reflection round</p> <p>After the festive ceremony of nomination, all teams, trainers and mentors are encouraged to sit in a circle and to share feelings, insights and experience gained. The reflection proceeds in an encouraging supportive manner. The participants are asked about their feelings at different stages of the Creathon, about the procedures of decision-making and working atmosphere in the groups, how they are going to proceed with the project ideas and what they have learned during the day. Afterwards mentors and trainers wonder what participants of the Creathon find successful and winning in the activity and what needs improvement. Their opinions are accepted with appreciation and carefully noted.</p>

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Youth work in the field of Education for Sustainable Development in Youth Organizations and NGO´s

Contact:

JANUN Hannover e.V.

Fröbelstr. 5

30451 Hannover

Tel. 0049-511-5909190

buro@janun-hannover.de

www.janun-hannover.de

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v.i.s.d.p. Achim Riemann

