

Inclusion, Environment, Science Education

# ACTIVITY TOOLKIT

Inspiring activities with inclusive approaches  
to environmental education for disadvantaged  
adults developed in the Come Together Project



COME  
TOGETHER

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# I. Summary

This Toolkit is a collection of all the educational activities designed and tested with different groups within Come Together project.

All the activities have been co-created with the different communities and are tailor made for a specific contexts, needs, facilitators and groups of people.

The Toolkit and the whole Project could not have been possible without the close collaboration between museum educators and community representatives in the different contexts: Roma, Ukrainian and Bosnian communities; community centers for homeless people or people experiencing psychological fragility; associations for prisoners; and organizations supporting young people in transition to employment or independent living.

The aim is to share the activities, the challenges and the learnings of the educators in order to stimulate other educators reflection and adaptation to other contexts and needs.

Each activity is presented through a brief description of the group and the context in which it has been tested, along with guidance and advice on the context where it may work best or might be less effective.

In the variety of the activities presented some elements emerged as particular important and in common for all the activities: relationship and time.

In order to develop truly inclusive activities it has been fundamental establishing a relationship with participants to the activities. This need time in order know each other, listen the different voices, develop trust and space for free expression for reaching a common understanding and interpretation of the theme proposed with all the different interpretations of the different participants.

The activities proposed in this Toolkit are the opposite of what usually museums offer: standard one shot activities to different groups of people.

In Come Together project the activities developed are deeply rooted in the contexts where they emerged and have been tested and are specifically designed with and for that contexts. It is still important to share with other educators these specific activities because we believe that the elements proposed can be adapted to other contexts and communities and we need together to learn one by the other.

All the 21 different activities illustrated in the Toolkit emerged by the principles illustrated in the documents:

Guiding Principles

Training Guide

## Note to museums

The activities in this Toolkit, though rooted in community spaces, offer inspiration for museums willing to take on a more sustained and relational role.

Beyond one-shot events, museums can nurture ongoing connections — hosting recurring activities, collaborating with local associations, and creating spaces of trust and care.

In this way, the museum becomes part of the community's fabric: not a place to visit once, but a place that listens, accompanies, and grows alongside its people.

## 1. Come Together project

Come Together project aims at developing inclusive activities on climate and environmental issues for adults in situations of exclusion or vulnerability. It is based on a dynamic of crossing knowledge and practices between science communicators, climate researchers, and social actors.

The project combines three main strands:

- Hubs: spaces for dialogue between mediators, researchers, and social actors
- A training course to design and deliver inclusive climate mediation
- New educational activities dedicated to vulnerable adults

Come Together is a European project funded by the Erasmus+ program (2023–2025).

It involves five museums/science centers with different expertise:

- National Museum of Science and Technology Leonardo da Vinci, Milan, Italy (coordinator)
- Universcience, Paris, France
- ScienceCenter-Network, Vienna, Austria
- Ethnological Museum Berlin, Germany
- Slovene Ethnographic Museum, Ljubljana, Slovenia

## 2. Objectives of activities

The activities developed within the project aim to promote inclusive dialogue and creative engagement on climate change among socially and economically vulnerable adults through educational and artistic approaches.

The main objectives are to:

- increase participants' awareness of the links between climate change, social inequality, and resources exploitation;
- foster self-expression and mutual understanding through participatory and co-creative processes;
- strengthen social inclusion by connecting personal experiences with global environmental challenges;
- build bridges between scientific and artistic perspectives, using museum collections, hands-on educational activities and performative methods as catalysts for reflection;
- enhance facilitators' and educators' capacity to work with diverse audiences through body-based and dialogue-oriented methods.

Ultimately, the activities seek to empower participants to see themselves as active contributors to cultural and environmental transformation rather than passive recipients of knowledge.

### 3. Toolkit target audience

This Toolkit is intended for professionals working at the intersection of education, science communication, social engagement, and cultural mediation. It is particularly relevant for practitioners who collaborate with groups experiencing social or economic exclusion, or who address environmental and societal challenges through participatory approaches. At the same time, it offers inspiration and practical tools for facilitators, educators, and researchers who wish to deepen their skills in inclusive communication, co-creation, and experiential learning.

### 4. How to use this Toolkit

The Toolkit is structured so that each activity can be read and used independently. There is no need to follow a specific order: activities can be selected individually or combined to build a broader educational path.

Starting with the features summarized in Activities in brief, readers can identify the activities most relevant to their needs or interests. The activity sheets are intended as a source of inspiration: they provide a concrete reference, while also encouraging users to adapt and modify them according to their participants, resources, and objectives. They are therefore not a rigid manual, but a flexible tool for experimentation.

## 5. Activities in brief

Target group	Themes	Duration	Format	Location
<b>1. Film screening and discussion: possible worlds and real injustices</b>				
Adults experiencing social marginalisation and homelessness	Climate justice, migration, inequality, hope, political imagination, activism, care, small gestures	90-120 min	Film screening and moderated discussions	Community centre managed by Caritas Milano
<b>2. Art workshop: drawing a changing nature</b>				
Adults with migratory backgrounds or housing vulnerability	Nature, climate change, emotions, memory, artistic expression	60-75 min	Expressive art workshop	Community centre managed by Caritas Milano
<b>3. Intercultural workshop: climate and the city: ideas for collective care</b>				
Adults with migratory backgrounds or housing vulnerability	Climate change, urban space, rights, care, vulnerability, urban resilience	60 min	Intercultural dialogue and reflection workshop	Community centre managed by Caritas Milano
<b>4. Poetry lab: poetry of the earth and difference</b>				
Adults with migratory backgrounds or housing vulnerability	Climate change, identity, permanence, emotions, language, listening	60-75 min	Participatory poetry workshop	Community centre managed by Caritas Milano
<b>5. Shadowgram: degrowth and dialogue</b>				
Mixed audience museum visitors and marginalized groups	Degrowth and collective responsibility • Urban life, speed, and slowing down • Dialogue, community, and deep listening	2 sessions of 1 hour each	Participatory artistic workshop combining visual creation and dialogue	Museums, cultural festivals, or public events
<b>6. The World in Balance. Dialogues on Sustainability</b>				
Mixed audience, museum visitors and marginalized groups	Sustainability • human-Earth relationships • imagination and lived experience • needs and desires • collective reflection	90 min	Participatory workshop combining spatial transitions, collective listening, imaginative exploration, symbolic actions, and shared restitution.	Indoor open space allowing movement
<b>7. From field to table: food, culture and community</b>				
Roma people / Ethnic minorities / Migrants	Sustainable gardening • Herbalism, waste separation • Food waste • Roma cuisine • Common heritage	90 min	Dialogue-based workshops with practical testing	

Target group	Themes	Duration	Format	Location
<b>8. Cooking traditions: sharing the heritage of food preparation</b>				
Roma people / Ethnic minorities / Migrants	Evolution of food practices and traditions • Climate change and community resilience • Food, identity, and social stereotypes • Personal and intergenerational food memories • Preserving traditional knowledge for the future	50 min	Dialogue event	
<b>9. Tastes of memory: exploring the heritage of Food and community</b>				
Roma community and long-term unemployed individuals	Food production and consumption, heritage, environmental adaptation, societal adaptation, intergenerational transmission of knowledge.	90 min	Social theatre activities, a guided tour of the exhibition and a moderated discussion offering reflection on the explored themes	
<b>10. Climate collages</b>				
Unemployed or job-seeking women	Climate change and environment, migration, nature • Perceptions and relations to climate change • Creativity and imagination as a tool for dialogue	75 min	Workshop	Indoor space with calm atmosphere
<b>11. CO2 experiments and discussion on climate change</b>				
Unemployed or job-seeking women	Climate change, greenhouse effect, CO2 cycle, ocean acidification, climate protection, societal adaptation, political measures, climate justice	120 min	Hands-on scientific experiments + collaborative discussion game	Indoor space with calm atmosphere
<b>12. A garden journey – exploring community, culture and ecology</b>				
Bosnian and Ukrainian refugee women	Personal and traditional knowledge of plants and biodiversity • Community gardens, sustainability, and global–local perspectives • Climate change impacts and sustainable food practices • Cultural exchange and community participation	150-165 min	Dialogue event/ Conversational format and preparing a food as a joint activity	Intercultural community garden in the city center of Berlin
<b>13. Connecting with nature: yoga, awareness and insect encounters</b>				
Ukrainian refugee women	Climate change, environment, biodiversity loss, human–environment–relations, wild nature and its importance for urban ecosystems	120-150 min	Dialogue event and workshop	Outdoor/ green space, if possible actively managed by the city administration, meadow with wild plants, during spring/ summer/early fall, daytime, dry weather and mild temperature.

Target group	Themes	Duration	Format	Location
<b>14. Protective beings – the superpowers of nature</b>				
Ukrainian refugee women and children	Personal and cultural relationships with nature and animals • Biodiversity, species survival, and urban ecosystems • Local and global perspectives on human–animal coexistence • Cultural and ecological impacts of climate change	150 min	Dialogue event and hands-on workshop	Museum: exhibition, indoor workshop space
<b>15. Exploring the Stadtheide – Nature and connection</b>				
Ukrainian refugees	Urban biodiversity and the ecological value of wild plants • Cultural meanings and traditional knowledge of herbs and flowers • Use of digital tools for observing nature	120 min	Dialogical tour and interactive, artistic workshop	An accessible outdoor space, characterized by wild meadows and plants. Ideally, the green space would be home to various insects and birds
<b>16. Exploring nature at Kienbergpark</b>				
Adults and children	Sensory awareness and connection with natural environments • Human–nature relationships and environmental care • Role of urban green spaces in sustainability • Responsible use of natural resources and collective climate action	120 min	Interactive guided tour with creative exercise	The activity was carried out on an accessible outdoor space, characterized by wild meadows and plants. A teaching garden is also part of the park and was used to introduce various wild and cultural plants as well as for exploring insects.
<b>17. Performative mapping – A walk at the river Spree</b>				
Ukrainian and Bosnian refugee women	Environmental justice and resource use, embodied and sensory experience of the environment, importance and fragility of urban ecosystems in the context of climate change, creative expression as a way to connect with other people and the environment	150 min	Guided performative walk, creative conversational	A natural environment near a river or another public resource of nature (e.g. green space or lake). Access to not too crowded outdoor spaces for walking and reflection is needed as well.
<b>18. From aztec Chinampas to urban hydroponics</b>				
Ukrainian refugees, adults and children	Principles of sustainable and urban farming • Traditional agriculture and climate resilience • Biodiversity and healthy ecosystems • Water saving and recycling in food production • Everyday applications of sustainable practices	120 min	Dialogical tour with hands-on experiences	A combination of indoor and outdoor spaces, allowing for both theoretical input and practical demonstration. The indoor space should be accessible, quiet, and equipped with basic presentation tools (e.g. projector, seating, flipcharts).

Target group	Themes	Duration	Format	Location
<b>19. Reclaiming the ocean: Māori cosmology, art and upcycling</b>				
Ukrainian refugee, women and children	Māori worldview and cultural connection to the ocean • Plastic pollution, marine ecosystems, and sustainability • Indigenous art, mythology, and environmental storytelling • Colonial histories and perspectives on climate justice	120 min	Dialogical tour and upcycling workshop	A separate workshop space with tables, chairs, and enough room for crafting Bean bags
<b>20. Indigenous knowledge for sustainable futures</b>				
Ukrainian refugee women and children	Indigenous and spiritual worldviews on nature as living and sacred • Sustainable and traditional ecological practices • Human–nature relationships and environmental ethics • Creative and collaborative storytelling through body and theatre	135 min	Dialogical tour, theatre workshop and future storytelling	<ul style="list-style-type: none"> <li>· Exhibition space with objects, photographs, images or other visual material related to the topic of the guided tour.</li> <li>· Bean bags, floor cushions or other soft seating help create a cozy and personal atmosphere to reduce possible inhibitions during the discussion and theatre exercises. But chairs will work, too.</li> </ul>
<b>21. Giving voice to climate: participants as science communicators</b>				
Prisoners	Climate change, environmental issues	4-6 x 2 hours	Co-creation of an exhibition, exchange with expert	In community centers, social institutions, museums, or correctional settings
<b>22. Building an interactive map to explore local biodiversity</b>				
School drop-outs and other young adults looking for a job/training/further education	Biodiversity, local fauna, local species and their habitats, species identification, climate, history.	4 x 3 hours	Workshop, outdoor explorations, manual activities, exchange with expert	Establishment center for employment integration

## 6. Educational activities evaluation tools

To better understand the impact of the Come Together activities, three complementary evaluation tools were used:

- a participant questionnaire
- an observation sheet, and
- an interview guide for facilitators and professionals.

Each tool explores a different level of the process:

- The questionnaire captures participants' perceptions, feelings, and reflections immediately after the activity.
- The observation sheet focuses on the relationship between facilitators and the audience, analysing dynamics of dialogue, participation, and emotional engagement.
- The interviews invite facilitators and operators to reflect on how the co-design and delivery of the activities have influenced their professional practice and their understanding of inclusion, participation, and dialogue.

This combined framework allows educators to capture both the individual and collective dimensions of learning, offering the possibility to assess how embodied and participatory practices can foster inclusion and engagement for climate action.

# II. Activity descriptions

## Note on timing and descriptive structure:

The structure and level of detail in the activity descriptions may vary from one partner to another. This diversity reflects the different educational and institutional contexts in which the activities were developed — from museums to community centres, from intercultural hubs to associations supporting vulnerable groups.

Some activities are described through precise timeframes and step-by-step sequences; others are narrated more freely, emphasizing atmosphere, relationships, or collective processes. This variety has been intentionally preserved, as it mirrors the multiplicity of facilitation styles and learning rhythms that shaped the project.

Rather than prescribing a single model, these descriptions aim to convey the spirit of each activity — its flow, tone, and participatory dynamics — so that educators can reinterpret and adapt them according to their own contexts and audiences.

## 1. Film screening and discussion: possible worlds and real injustices

Designed and tested by: La Piazzetta community centre (Caritas Milano) and National Museum of Science and Technology "Leonardo da Vinci", Milan, Italy

### In brief

Duration	90-120 min
Number of participants	5-15
Number of facilitators	1-2
Special materials	A film for screening, Screen and sound system
Objectives	<ul style="list-style-type: none"><li>• Use cinematic storytelling to stimulate reflections on climate and social justice</li><li>• Connect dystopian or realistic imaginaries to everyday experiences</li><li>• Foster peer-to-peer dialogue in a safe and welcoming space</li></ul>
Tested with	Adults experiencing social marginalisation and homelessness

### OVERVIEW

Through the screening of *Waterworld* (or other films exploring extreme climate scenarios such as *Woman at War*), participants are invited to reflect on themes of environmental and social justice. The discussion focuses on how these fictional worlds resonate with real experiences of inequality and resilience.

Through the screening of *Waterworld* (or other films portraying extreme climate scenarios such as *Woman at War*), participants are invited to reflect on the themes that resonate most with them, especially those related to environmental and social (in)justice and collective resilience.

## Context

The activity took place at La Piazzetta, a community centre managed by Caritas Milano that supports adults facing social and economic vulnerability.

Participants included regular visitors to the centre - people experiencing unemployment, housing insecurity, or migration-related challenges - who joined the sessions in an informal setting designed to foster trust, openness, and collective reflection on the relationship between people. The center has a structured weekly program of activities, and our collaboration resulted in designing a re-adaptation of their activities to the themes of the Come Together project.

## SUGGESTED SCENARIOS

Community room or informal space with comfortable seating. The activity is drop in, participants are free to come and go. The atmosphere should be welcoming and non-judgmental.

## Description

The facilitators briefly introduce the film, highlighting the core themes. After the screening, they propose an open discussion guided by questions that encourage participants to share their ideas and personal experiences related to different themes suggested by the movie. For our activity, the themes were: justice, exclusion, and paths of resistance, as well as extreme weather events and visions of possible futures.

## TIMING

- Introduction: 10 min
- Film screening: 60–90 min (full or selected scenes)
- Discussion: 20–30 min

Materials	Settings	Topics
<ul style="list-style-type: none"><li>• Selected film (e.g. Waterworld, Wall-E, Woman at War)</li><li>• Screen and sound system</li><li>• Printed or projected guiding questions</li></ul>	No specific setting is required for this activity	Climate justice, migration, inequality, hope, political imagination, activism, care, small gestures

## REFLECTION QUESTIONS

### How do you value participants' experience?

Participants' experiences were valued through guided discussion and emotional reflection.

After the screening, facilitators invited participants to connect the film's themes with their personal sense of injustice, inequality, or hope. To inspire this connection a series of questions have been used:

- Did you identify with any character? Why?
- Who is protected in the film, and who is not?
- What emotions did the film leave you with?
- Did you notice characters who represent different ways of reacting to injustice?
- Did you spot any symbolic elements or seemingly comical situations with a deeper meaning?

Each voice was recognised as a legitimate interpretation rather than a "correct" reading of the film. Facilitators encouraged participants to relate scenes to real-life experiences or news events familiar to them, supporting ownership of meaning.

The activity fostered critical thinking through empathy and comparison between lived experiences and fictional narratives.

#### Facilitator's learnings

- Value emotional reactions as entry points to complex topics.
- Avoid academic language; start from the participant's point of view.
- Recognise that disagreement or discomfort may indicate deep engagement.

#### **How do you reinforce two-way dialogue among participants, facilitators, and experts?**

The screening was followed by a collective discussion, moderated by center's educators.

This activity could also host the presence of an expert (such as researchers or filmmakers) to react to participants' comments rather than deliver a talk.

Facilitators tried to maintain the conversation on the theme and balanced it by ensuring diverse perspectives — scientific, artistic, and personal — could coexist.

This dialogical setting created mutual listening rather than a hierarchical exchange.

#### Facilitator's learnings

- Use open-ended questions to trigger authentic dialogue.
- Encourage experts to respond with curiosity rather than correction.
- Create an atmosphere where silence and reflection are also part of the dialogue.

## **FACILITATOR'S NOTES**

- The film creates a shared space for emotional engagement and critical thinking
- Collective viewing strengthens group cohesion
- A final moment of open sharing, writing or drawing is recommended
- Including films with female protagonists and themes of care (e.g. *Woman at War*) helps explore diverse approaches to change and justice

## **Appendix**

### **When this activity is suitable**

- In community spaces with an open and informal atmosphere that encourages conversation.
- When participants seek meaningful dialogue and recognition of their own experiences through the shared viewing of a film.
- When the film acts as a catalyst for reflection and exchange, not as the main goal of the meeting.

### **When this activity is less suitable**

- When participants attend mainly for comfort or shelter, without interest in dialogue or exchange.
- In contexts where the group is newly formed and trust has not yet been established.
- When the film topic or tone is too distant, abstract, or heavy for the audience's lived experience.
- When the discussion is treated as an add-on rather than as the central relational and reflective moment.

## 2. Art workshop: drawing a changing nature

Designed and tested by: La Piazzetta community centre (Caritas Milano) and National Museum of Science and Technology "Leonardo da Vinci", Milan, Italy

### In brief

Duration	60–75 min
Number of participants	6–12
Number of facilitators	1–2
Special materials	Videos on climate change consequences (with projector/screen if needed)
Objectives	<ul style="list-style-type: none"><li>• Encourage personal and creative reflection on nature</li><li>• Support non-verbal expression through artistic means</li><li>• Connect personal experiences to global environmental issues</li></ul>
Tested with	Adults in situations of social vulnerability and homelessness

### OVERVIEW

Through guided and free drawing, participants reflect on the meaning of nature and on the environmental transformations linked to climate change. The activity encourages both individual and collective expression through visual language.

### Context

The activity took place at La Piazzetta, a community center managed by Caritas Milano that supports adults facing social and economic vulnerability.

Participants included regular visitors to the center, people experiencing unemployment, housing insecurity, or migration-related challenges, who joined the sessions in an informal setting designed to foster trust, openness, and collective reflection on the relationship between people. The center has a structured weekly program of activities, and our collaboration resulted in designing a re-adaptation of their activities to the themes of the Come Together project. A date was chosen that coincided with an international day with a coherent theme, May 21st, World Day for Cultural Diversity for Dialogue and Development, to ensure that the preceding weeks could be dedicated to themes encompassing sustainability and inclusion.

### SUGGESTED SCENARIOS

Welcoming space with tables and chairs. Participants work individually but can share in a group setting.

### Description

An art workshop held one day per week in la Piazzetta, for two weeks the topic have been climate change.

In the first day, participants are invited to reflect on the question: "What does nature mean to me?" They start from this question to create drawings using colored pencils, tempera, watercolors, and other expressive tools.

In the second day, they observe and comment on the previous artworks. Then, after watching videos on the consequences of climate change, they are encouraged to share if they have

experienced extreme weather events (floods, drought, heatwaves...) either in their country of origin or where they live now. They are invited to visually represent those experiences or imagine how the city and nature might be transformed by climate change.

To stimulate reflection and connect personal experience with broader environmental themes, facilitators proposed a set of guiding questions:

- What does nature represent for me?
- How do I imagine the city or the land in 20 years?
- What struck me the most from the images or videos?

## TIMING

- Introduction and initial reflection: 10 min
- Drawing activity: 30–40 min
- Collective observation and sharing: 20–25 min

Materials	Settings	Topics
<ul style="list-style-type: none"> <li>• A4 and A3 sheets</li> <li>• Colored pencils, markers, tempera, watercolors</li> <li>• Videos on climate change consequences (with projector/screen if needed)</li> </ul>	No specific setting is required for this activity	Nature, climate change, emotions, memory, artistic expression

## REFLECTION QUESTIONS

### How do you value participants' experience?

Facilitators invited participants to represent the transformations of nature they observed, stimulating them to express their perception and emotional response. Personal memories of landscapes, seasons, and environmental changes became central materials for creation. The process gave space to those with limited artistic confidence, focusing on gestures, textures, and the act of noticing. Each drawing was treated as a personal statement on environmental change, connecting lived experience and imagination..

Facilitator's learnings

- Emphasise process and valuing ideas over artistic skill.
- Use drawing as a tool for reflection, not aesthetic judgment.
- Recognise small details or mistakes as expressive and meaningful.

### How do you reinforce two-way dialogue among participants, facilitators, and experts?

The workshop fostered dialogue through collective observation and shared commentary. Facilitators alternated moments of silence and exchange, encouraging participants to verbalise what they saw in others' drawings and listening one each other. When artists or scientists were involved, they joined as co-observers, describing what the images revealed rather than evaluating the artistic quality of the images. This approach turned observation itself into a form of conversation.

Facilitator's learnings

- Alternate visual and verbal dialogue to keep all participants included.
- Ask questions about perception ("What do you notice?") instead of technique.
- When experts are present, involve them as learners within the group.

## FACILITATOR'S NOTES

- Drawing allows expression beyond verbal limits.
- Visual comparison reinforces a sense of shared experience.
- Images can spark meaningful autobiographical storytelling.

## Appendix

### **When this activity is suitable**

- When the space is safe and the climate is trustworthy,
- When at least some of the participants know each other enough to feel free to express personal interpretation and emotional sharing.
- In informal settings where the process of creation is valued more than the aesthetic result.

### **When this activity is less suitable**

- When the all group participants do not know each other, and they may feel exposed or judged when drawing.
- When time is too limited to create a calm and reflective atmosphere.
- In contexts where participants expect formal teaching rather than open expression.

### 3. Intercultural workshop: Climate and the city

Designed and tested by: La Piazzetta community centre (Caritas Milano) and National Museum of Science and Technology "Leonardo da Vinci", Milan, Italy

#### In brief

Duration	60–75 min
Number of participants	6–12
Number of facilitators	1–2
Special materials	<ul style="list-style-type: none"><li>• Whiteboard or large sheets for idea collection</li><li>• Optional thematic images or visual materials</li></ul>
Objectives	<ul style="list-style-type: none"><li>• Stimulate active participation and mutual listening</li><li>• Connect climate issues to daily and local experiences</li><li>• Generate ideas and identify needs related to urban life and collective care</li></ul>
Tested with	Adults with migratory backgrounds or housing vulnerability

#### OVERVIEW

Through a guided discussion on climate change and its effects in urban areas, participants share ideas and proposals on how to protect the most vulnerable people, drawing on personal experiences and diverse perspectives.

#### Context

The activity took place at La Piazzetta, a community centre managed by Caritas Milano that supports adults facing social and economic vulnerability.

Participants included regular visitors to the centre - people experiencing unemployment, housing insecurity, or migration-related challenges - who joined the sessions in an informal setting designed to foster trust, openness, and collective reflection on the relationship between people. The center has a structured weekly program of activities, and our collaboration resulted in designing a re-adaptation of their activities to the themes of the Come Together project. The activity took place in occasion of the World Day for Cultural Diversity for Dialogue and Development (21 May), to allow educators and participants to dedicate the weeks leading up to this day to themes encompassing sustainability and inclusion.

#### SUGGESTED SCENARIOS

Welcoming space with chairs in a circle or around a table.

The activity can also take place outdoors.

#### Description

The facilitator introduces the question: "What can we do to protect people experiencing homelessness from the effects of climate change in the city?" After an initial free brainstorming, participants are invited to share experiences and observations about extreme weather events (heavy rains, heatwaves, floods...) witnessed in the city or in their countries of origin.

The group then reflects and develops ideas on what can be done at both individual and collective levels, starting from a central question and using optional tools such as worksheets, images, or mind maps.

To stimulate reflection and connect personal experience with broader environmental themes, facilitators proposed a set of guiding questions:

- How does climate change affect life in the city?
- Who is most exposed to its consequences?
- What can we do to protect each other concretely?

### TIMING

- Introduction and activation – 10 min
- Collection of ideas, experiences, reflections – 25 min
- Group discussion on solutions and needs – 20 min
- Final sharing – 5 min

Materials	Settings	Topics
<ul style="list-style-type: none"> <li>• Whiteboard or large sheets for idea collection</li> <li>• Colored markers</li> <li>• Optional thematic images or visual materials</li> </ul>	<p>No specific setting is required for this activity. What matters most is creating a welcoming and inclusive atmosphere where participants feel comfortable to share their views and experiences about the city, community, and environment.</p>	<ul style="list-style-type: none"> <li>• Climate change,</li> <li>• Urban space,</li> <li>• Rights</li> <li>• Care</li> <li>• Vulnerability</li> <li>• Urban resilience</li> </ul>

### REFLECTION QUESTIONS

#### How do you value participants' experience?

Facilitators encouraged participants to reflect on their daily relationship with the city - how they experience, cross, and imagine it. The activity valued personal perspectives over theoretical knowledge, allowing stories of neighbourhoods, daily routines, and moments of solidarity or exclusion to emerge.

Memories, emotions, and individual reflections became materials for collective sense-making about urban life and care. By giving space to personal narratives, the activity fostered recognition and dignity - especially for those whose experiences of homelessness or vulnerability often remain unseen in public discourse.

#### Facilitator's learnings

- Begin from lived experiences and everyday realities rather than abstract discussions on climate or society.
- Use open-ended prompts to invite reflection without pressure to perform or agree.
- Treat personal stories, silence, and listening as equally meaningful contributions.
- Acknowledge the emotional and relational dimensions of talking about "care" in the city.

#### How do you reinforce two-way dialogue among participants, facilitators, and experts?

Dialogue was conducted in plenary, with all participants and facilitators seated in a circle to ensure equal participation. Members of the Museum team who had taken part in the co-design process acted as resource persons - not external experts, but peers who could deepen certain concepts or connect reflections to broader perspectives.

This open format encouraged spontaneous exchange: participants responded directly to each other's ideas, while facilitators helped weave connections and keep the dialogue inclusive and respectful. The process aimed to create a shared space of thought, where everyone could

contribute from their own standpoint and experience.

#### Facilitator's learnings

- Keep the dialogue in plenary to maintain a sense of shared space and equality.
- Use paraphrasing and summarising to connect participants' contributions without taking control.
- Recognise the dual role of facilitators as both listeners and contributors with contextual knowledge.
- Maintain an atmosphere of openness and trust, where disagreement can coexist with mutual respect.

### **FACILITATOR'S NOTES**

- The dialogic and participatory format values a diversity of experiences.
- The solutions proposed can inspire future practical activities.
- Focusing on the city makes the climate topic feel immediate and relevant.

## **Appendix**

### **When this activity is suitable**

- When participants are familiar with one another and the space provides an atmosphere of safety, trust, and informal exchange.
- When facilitators wish to use dialogue and reflection to explore participants' lived experiences of the city and belonging.
- When the aim is to strengthen relationships and dignity through participation and recognition of each person's contribution.

### **When this activity is less suitable**

- With large groups or participants unfamiliar with open dialogue formats
- When the group is new, unstable, or not yet ready to engage in open dialogue about personal or social experiences.

## 4. Poetry lab: poetry of the earth and difference

Designed and tested by: La Piazzetta community centre (Caritas Milano) and National Museum of Science and Technology "Leonardo da Vinci", Milan, Italy

### In brief

Duration	60–75 min
Number of participants	4–10
Number of facilitators	1–2
Special materials	<ul style="list-style-type: none"><li>• Copies of the last page of the workshop diary</li><li>• Copies of the poem</li></ul>
Objectives	<ul style="list-style-type: none"><li>• Offer a shared experience of poetic listening</li><li>• Highlight the expressive power of poetic language beyond literal understanding</li><li>• Foster reflection on identity, environment, and inner permanence</li><li>• Use lyrics as a way to stimulate personal experiences, memories, ideas and emotions sharing.</li></ul>
Tested with	Adults experiencing homelessness, migrants, people with lived experiences of exclusion

### OVERVIEW

Through the shared listening and collective analysis of an evocative poem, participants explore how they relate with Earth, body, transformation, emphasizing the musicality of language and the emotional strength of poetic expression.

### Context

The activity took place at La Piazzetta, a community centre managed by Caritas Milano that supports adults facing social and economic vulnerability.

Participants included regular visitors to the centre—people experiencing unemployment, housing insecurity, or migration-related challenges—who joined the sessions in an informal setting designed to foster trust, openness, and collective reflection on the relationship between people. The center has a structured weekly program of activities, and our collaboration resulted in designing a re-adaptation of their activities to the themes of the Come Together project. A date was chosen that coincided with an international day with a coherent theme, May 21st, World Day for Cultural Diversity for Dialogue and Development, to ensure that the preceding weeks could be dedicated to themes encompassing sustainability and inclusion.

### SUGGESTED SCENARIOS

A calm and intimate space with chairs arranged in a circle or semicircle. Some participants may prefer to listen in silence, even sitting slightly apart. The atmosphere is welcoming and non-judgmental.

## Description

The educator resumes what happened in the previous meetings; this type of activity requires continuity and consistency and a "logbook" can be a fundamental tool to support and confirm these characteristics.

This is particularly important when participants are not stable and change from time to time, like the case of the homeless people in some cases the continuity of the meetings during the weeks and the years allow the establishment of a relation with some of the participants who contribute more easily to the activity thanks to this relation and help the educator to stimulate the participation of the new comers. For this reason, the activity begins with the reading of the logbook by the educator who asks for comments to who took part in the previous meeting, then the educator presents the themes of the poetry of the day and reads aloud the poem (for example "Ciò che non muta io canto" by Mariangela Gualtieri, from the collection *Bestia di gioia* (2010) in English "Beast of Joy: Selected Poems" (2018) Eng. Ed. Mariangela Gualtieri (Author), Anthony Molino (Translator), Cristina Viti (Translator)).

A collective conversation follows, the most evocative words and passages, the musicality of the text, the rhymes, and the images evoked are commented on.

Many participants to the activity were not fluent in Italian language although the educator highlighted the powerful of the poem as a song, that can speak to the heart even without a full understanding of the language thanks to its beauty and musicality. Poetry is proposed as a form of resistance to the difficulties faced by participants in daily life and as a way of talking to them as people with ideas and feelings instead of identifying them simply with their needs.

### TIMING

- Reading the logbook and recall the workshop's themes - 10 min
- Introduction and poetry reading - 15 min
- Collective resonance and evocative analysis - 30 min
- Final open reflections and closure (in a circle, holding hands, expressing gratitude) - 15–20 min

Materials	Settings	Topics
<ul style="list-style-type: none"><li>• Copies of the last page of the workshop diary</li><li>• Copies of the poem.</li></ul> <p>(A translation of <i>Ciò che non muta io canto</i>, the poems read during the test, is available in this bilingual edition: <i>Beast of Joy: Selected Poems</i>, Mariangela Gualtieri, Chelsea Editions, 2018, translated from the Italian by Anthony Molino and Christina Viti.)</p>	<p>A quiet, welcoming space – a trusting and established relationship with educators. The regularity of the meetings over the weeks and the years is essential for meaningful outcomes. The success of the activity depends greatly on the space, the educators' skills, and regularity of the meetings.</p>	<ul style="list-style-type: none"><li>• Climate change</li><li>• Identity</li><li>• Permanence</li><li>• Emotions</li><li>• Language</li><li>• Listening.</li></ul>

## REFLECTION QUESTIONS

### **How do you value participants' experience?**

The poetry lab valued participants' linguistic diversity and emotional expression.

Facilitators encouraged the use of multiple languages, dialects, or hybrid forms, showing that every linguistic gesture carries meaning. The act of reading aloud transformed personal words into shared emotion, creating a collective soundscape. Not in this specific context, but during these workshop meetings, the life experiences of the participants – of migration, memory or care – became the invisible material of a collectively written poem. During the collective reading and discussion phase, facilitators encouraged participants to explore the emotional and sensory dimensions of the selected poems rather than focusing on formal interpretation.

To guide this process, they invited participants to reflect through a few open questions:

- Which word or phrase impressed you?
- What image did the poem evoke for you?
- What sound or rhythm struck you?

These questions were designed to help participants connect the poem to their own memories, emotions, and experiences.

Rather than searching for a "correct" meaning, the emphasis was on what each person perceived and felt – allowing individual resonances to become shared insights within the group. Through this approach, personal experience was recognised as a central interpretive lens, turning the reading into a collective act of self-expression and mutual recognition.

Facilitator's learnings

- Recognise language as identity, not just as a communication tool.
- Value non-linear, non-standard, or multilingual expression.
- Create a safe emotional space before proposing public reading.

### **How do you reinforce two-way dialogue among participants, facilitators, and experts?**

Dialogue in the Poetry Lab emerged more through exchange rather than analysis.

During the shared reading, facilitator invited participants to react freely – describing the images or emotions that the poems evoked and, when they wished, sharing other texts or verses they knew that resonated with similar themes.

This often brought to light poems, songs, and prayers from participants' cultural or religious backgrounds – from North Africa, Eastern Europe, South America, and Southern Italy – transforming the session into a space of reciprocal learning.

Facilitator not only interpreted, but also listened and asked clarifying or comparative questions:

- What does this remind you of?
- Is there a similar image in your language or culture?

In this way, the poems proposed by the facilitators became starting points for a broader dialogue where everyone – regardless of language or literacy level – could contribute meaning, emotion, and memory.

The exchange moved naturally between voices, with participants and facilitators alternating in proposing and commenting, building together a shared poetic and cultural landscape.

Facilitator's learnings

- Use poems as bridges between languages, traditions, and personal stories.
- Use collective reading as a moment of equality.
- Let participants introduce their own cultural materials when resonance arises.
- Maintain openness: dialogue grows when interpretation is shared, not guided.
- Recognise that in multilingual and intercultural groups, poetry becomes a common ground rather than a subject to be taught.

## **FACILITATOR'S NOTES**

- Listening to poetry opens interior spaces even without rational mediation.
- The orality and musicality of the text are accessible even to those with language barriers.
- The activity fosters a sense of belonging and mutual respect.
- Allowing people to express themselves is a powerful learning tool. Sharing, listening, and verbalising emotions and experiences are deeply transformative, but require careful facilitation. The educator's sensitivity is essential to balance moments that could otherwise become overwhelming or superficial, diminishing the value of the experience.

## **Appendix**

### **When this activity is suitable**

- When the workshop has regular meetings and the educators is able to establish a relationship with the participants
- When the group is open to listening and emotional resonance
- When the space is safe and the climate is trustworthy,
- When the atmosphere and environment provide refreshment for both body and mind.

### **When this activity is less suitable**

- When there is high restlessness or rejection of poetic language and one-shot sessions
- When the educator is not confident with using poetry with people who does not interpret perfectly the language.

## 5. Shadowgram: growth and dialogue

Designed and tested by: National Museum of Science and Technology  
"Leonardo da Vinci", Milan, Italy

### In brief

Duration	60–90 min
Number of participants	10–20
Number of facilitators	1–2
Special materials	<ul style="list-style-type: none"><li>• a film for screening</li><li>• Screen and sound system</li></ul>
Objectives	<ul style="list-style-type: none"><li>• To encourage participants to reflect on the concepts of degrowth and dialogue through artistic and participatory processes</li><li>• To create a space of encounter between people from different social and cultural backgrounds</li><li>• To promote awareness of personal and collective values through self-representation</li><li>• To integrate artistic, reflective, and dialogical methods within a museum context</li><li>• To foster non-formal interaction between museum visitors and community participants</li><li>• To stimulate the experts to listen and contextualize personal knowledge of participants in the wider expert's reflection about the topics</li></ul>
Tested with	Mixed audience museum visitors and marginalized groups, tested twice in occasion of the European Researchers' Night 2025

### OVERVIEW

Shadowgram: degrowth and dialogue is a participatory visual workshop inviting participants to reflect on social and environmental themes through the creation of silhouette portraits and collective discussion.

Participants explore the social and emotional dimensions of proposed theme through theatre-based exercises, group creation, and the production of silhouette images (shadowgrams). The activity has been tested during the European Researchers' Night for exploring the themes of degrowth and dialogue, using the act of creating and displaying silhouettes as a metaphor for visibility, voice, and interconnection. The session culminated in a shared reflection led by an expert, who explore the connection between the images and performances to broader reflections on the topics.

### Context

The activity was tested at the National Museum of Science and Technology during the European Researchers' Night.

It involved a mixed audience, including visitors attending the public event and a small group of participants from Casa della Carità, a social centre working with adults in vulnerable situations.

Two two-hour sessions focused respectively on degrowth and dialogue . The first part of each session engaged participants in creative and reflective exercises leading to the production of their silhouette images, while the second part included an open discussion with an invited expert. The combination of museum visitors and community participants created a rich space for exchange between different experiences and perspectives, turning the artistic activity into a shared reflection on social and environmental imagination.

## SUGGESTED SCENARIOS

Ideal for museums, cultural festivals, or public events that combine creative engagement with thematic reflection. It can also be implemented in community hubs or educational programs seeking to bridge artistic expression and social dialogue.

## Description

The session combines body-based exercises, sociometric movement, group creation, and visual expression through the shadowgram technique. Participants move from physical warm-up to expressive tableaux, which are photographed, printed, and collectively displayed. The silhouettes and captions then serve as starting points for a facilitated discussion on the chosen theme, degrowth and dialog in our case.

## TIMING

Example theme: "Imagining the City of the Future" – The examples below can be replaced with any topic exploring collective imagination, emotions, or values.

5 min	<p><b>Introduction</b></p> <p>Welcome participants and introduce the idea of exploring a shared theme through movement and silhouettes.</p> <p>Example: imagining the *future city* – how we live together, what we build, what we miss. Explain the Shadowgram process and its goal: to create a collective visual map of perceptions and emotions.</p> <p>Purpose/Focus: set a reflective and participatory tone; connect personal and collective imaginaries.</p>
10 min	<p><b>Theatre warm-up</b></p> <p>Short body and rhythm exercises inspired by theatre: walk as if the city were asleep / rushing / breathing / flooded with light. Encourage participants to play with tempo, distance, and posture.</p> <p>Purpose/Focus: build trust, presence, and embodied awareness.</p>
10-15 min	<p><b>Corporeal sociometry</b></p> <p>Participants move across the space according to opposite prompts, such as:</p> <ul style="list-style-type: none"> <li>• "Who imagines the city of the future as fast / slow?"</li> <li>• "Who sees it full of nature / full of technology?"</li> <li>• "Who feels hopeful / worried about it?"</li> </ul> <p>They briefly share why they chose that position.</p> <p>Purpose/Focus: highlight diversity of perspectives; make abstract ideas tangible through movement.</p>

15 min	<p><b>Group creation – Tableaux vivants</b></p> <p>In small groups (3–5), participants create static “living pictures” expressing a shared feeling or vision, e.g.: “a city without noise,” “a place where people repair things,” “a city overtaken by trees.”</p> <p>Purpose/Focus: encourage cooperation and visual storytelling; translate emotions into symbolic forms.</p>
10-15 min	<p><b>Shadowgram creation</b></p> <p>Each tableau is photographed as a silhouette and arranged into a collective composition — *the Atlas of Futures*. Groups can add short captions or questions (“What is worth preserving?”, “Can progress slow down?”).</p> <p>Purpose/Focus: turn ephemeral gestures into a shared visual artefact; connect imagination and reflection.</p>
10 min	<p><b>Reflection and closure</b></p> <p>Participants observe and comment on the silhouettes: what they recognize, what surprises them. They can write comments or questions on post-its (“One thing I’d like to keep from this world,” “One thing I’d change”). Final collective sharing.</p> <p>Purpose/Focus: deepen reflection and dialogue; integrate personal and collective insights.</p>

The Shadowgram format can be adapted to many educational or participatory settings. Below are examples of alternative themes that facilitators may explore:

- Degrowth and desires – exploring what we can renounce or rediscover.
- Dialogue and deep listening – expressing how we speak, listen, and create meaning together.
- Time and slowness – perceiving rhythm and change in everyday life.
- Fragility and strength – representing vulnerability as a resource for connection.
- Hospitality and care - imagining gestures and postures of welcome, presence, and mutual support.
- Belonging and exclusion - mapping how we move toward or away from others in shared spaces.
- Difference and coexistence - discovering how diversity shapes our ways of being together.
- Accessibility and empathy - representing barriers and bridges, how inclusion feels in the body.
- Trust and vulnerability - exploring how confidence is built through openness and shared fragility.

Materials	Settings	Topics
<ul style="list-style-type: none"> <li>• Big and white wall</li> <li>• Webcam and printer for silhouette creation</li> <li>• P5.js code to produce shadow <a href="https://editor.p5js.org/fabbrista/sketches/KK-4g1MvW">https://editor.p5js.org/fabbrista/sketches/KK-4g1MvW</a></li> <li>• Paper sheets, scissors, adhesive tape</li> <li>• Large board or wall for display</li> <li>• Post-it notes for captions and questions</li> <li>• Space for movement and group creation</li> </ul>	<p>A flexible space was for body exercises, light projection, and discussion. Printed silhouettes were exhibited on a collective board, allowing participants to see their creations as part of a larger visual conversation.</p>	<ul style="list-style-type: none"> <li>• Degrowth and collective responsibility</li> <li>• Urban life, speed, and slowing down</li> <li>• Dialogue, community, and deep listening</li> </ul>

## REFLECTION QUESTIONS

### **How do you value participants' experience?**

Participants' experiences were valued through artistic creation, reflective conversation and dialogue with an expert. The shadowgram technique allowed each person to express identity and perspective through body posture and silhouette, without needing verbal explanation. This non-verbal medium gave equal presence to all participants, including those less comfortable speaking. The group discussion connected individual images to collective questions about degrowth, justice, and shared futures. Facilitators and experts recognised both artistic and emotional contributions as valuable forms of knowledge.

#### Facilitator's learnings

- Use creative methods to balance verbal and non-verbal participation.
- Allow time for observation and interpretation before asking questions.
- Treat artistic output as a starting point for collective meaning-making.

### **How do you reinforce two-way dialogue among participants, facilitators, and experts?**

Two sessions were designed to alternate artistic creation and thematic reflection. In the second session expert joined connecting participants' images and words to social concepts. Expert contribution was dialogical, building on what participants had already produced rather than introducing external theory. The mixture of museum visitors and community participants encouraged authentic exchange across social boundaries.

#### Facilitator's learnings

- Integrate experts after participants' ideas have emerged, not before.
- Maintain balance between structure and openness in group dialogue.
- Recognise diversity as a strength: multiple publics generate richer discussion.

## INSIGHTS

The Shadowgram format proved effective in connecting different audiences through embodied and visual practices.

The progressive structure - from movement to reflection - encouraged participants to shift from instinctive reactions to conceptual understanding. The collaboration between the Museum team and the experts successfully linked creative expression with critical analysis, helping participants see degrowth not as deprivation but as transformation. The presence of guests from Casa della Carità added authenticity and depth to the dialogue, while the open museum context invited spontaneous participation from visitors.

- The physical exercises help to dissolve social barriers .
- Keep transitions clear between artistic and reflective moments to maintain focus.
- Encourage participants to share emotions during the sociometric and tableau phases.
- Allow time for spontaneous contributions during the dialogue - these often generate the richest insights.

## Appendix

### When this activity is suitable

- When exploring social or environmental themes in public or mixed-group contexts
- When space allows for both movement and projection/display
- When facilitators can integrate artistic and reflective methods

### When this activity is less suitable

- When the available time is under 90 minutes
- When participants are uncomfortable with body movement or photography
- When lighting or space cannot be adapted for silhouettes and group work

### Additional resources

TIM Toolkit. A practical guide output of the Theatre in Mathematics project produced by SCT Centre, describing in detail many theatre exercise, part of the TIM methodology.

<https://old.theatreinmath.eu/outputs/tim-methodology/>

## 6. The World in Balance. Dialogues on Sustainability

Designed and tested by: Museo Nazionale Scienza e Tecnologia Leonardo da Vinci & Casa della Carità – Theatre Group

### In brief

Duration	90 min
Number of participants	20-40
Number of facilitators	2-4
Special materials	Inflatable writable globe, floor circle, post-its, printed words, small symbolic objects
Objectives	<ul style="list-style-type: none"><li>• Publicly share the pathway carried out</li><li>• Activate dialogue and listening between the group and museum visitors</li><li>• Introduce systemic perspectives on human–Earth relationships</li><li>• Create a temporary sense of community</li><li>• Demonstrate participatory facilitation practices led by vulnerable groups</li></ul>
Tested with	General museum visitors (adults and young adults)

### OVERVIEW

A public-facing laboratory in which participants from Casa della Carità guide museum visitors through a shared journey of desires, needs and possibilities, symbolically bringing the World “on stage” to speak and listen.

A performative experience in which the Earth symbolically speaks while participants respond with gestures, movement and spatial choices.

Visitors are guided through the core themes explored during the pathway: desires, needs, the speaking world, and collective possibilities.

### Context

The World in Balance emerges from a four-session exploratory pathway in which participants navigated imagination, lived experience and symbolic perspective-taking. The process was intentionally divergent: each session opened new possibilities rather than moving toward a predefined outcome.

It began with a Desired World, an imaginative landscape shaped by dreams and longings. It then shifted into the World of Needs, where selected images and shared reflections grounded the group in more concrete conditions of life. A third phase introduced the Speaking World, a poetic voice of the Earth that invited participants to step briefly outside their own biographies and experiment with alternative viewpoints. The final session combined personal photographs, synthesis and a perspective-taking exercise that revealed both the richness and the difficulty of shifting out of one’s own lived experience.

The pathway highlighted strong creative potential, moments of genuine insight and some clear limits—especially when working with groups living complex forms of vulnerability. Rather than producing a finished format, it generated a set of promising elements: symbolic transitions, collective listening, embodied metaphors and tools for surfacing desires and needs.

The World in Balance translates these elements into an early-stage, museum-oriented laboratory. It is not a definitive model, but a prototype with significant potential.

Our intention is to refine and test it with different groups and school classes, understanding how each context reshapes the experience and which components support meaningful participation across diverse audiences.

## **SUGGESTED SCENARIOS**

- Public museum events
- Thematic days on environment, community, imagination
- Short participatory sessions

## **Description**

The activity invites visitors to engage in a shared reflection on the World.

Through different phases, it focuses on mutual listening, awareness, and active participation.

Although the initial intention was for participants from Casa della Carità to co-facilitate the session, the activity was ultimately led by the Casa della Carità educator, with the theatre group taking part alongside visitors. This created a cohesive mixed group in which everyone contributed on equal footing.

The session begins with a welcome and a brief introduction to the project, followed by an explanation of the two symbolic spaces - the Desired World and the Speaking World - and the threshold that separates them. The atmosphere is informal and supportive: visitors and participants gather around a large circle on the floor, preparing to explore the planet through imagination, listening, and shared reflection.

After a short warm-up and preparation, the first phase unfolds within the Desired World. The educator invites the group to walk inside the drawn circle and imagine the world they would like to live in. Words, associations, memories, and images emerge spontaneously and collectively. This space is intentionally utopian: a place where desires can be expressed freely, without restrictions.

The group then crosses the threshold for the first time. In the Speaking World, everyone gathers around an inflatable globe to listen to the first section of a poetic monologue voiced from the perspective of Earth. Here the focus shifts toward listening rather than action.

After this first moment of listening, the group returns to the Desired World. New desires surface - now in contrast with what has been heard. The threshold reinforces the distinction between imagining the world and listening to the world.

The monologue is divided into three parts, and the educator guides the group back into the Speaking World for the remaining sections. Crossing the threshold repeatedly makes the alternation between viewpoints clear and tangible.



After the final listening moment, participants write their expressed desires inside the circle. The educator reads them aloud, giving shape to a shared horizon.

The threshold is then removed, and the globe is placed in the centre of the circle. Attention shifts to the Lived World of Needs. A set of photographs is arranged on the floor outside the circle. Participants walk through them, choose one image representing a personal essential need, and place it inside the circle. The educator introduces each photo and invites those who selected it to comment if they wish. This is where imagination and lived experience begin to meet.



A third transition takes place when each participant is invited to briefly hold the globe and “speak as the World”, expressing what they believe the planet might ask of humans based on the experience of the session. The globe is passed from hand to hand, creating a shared interpretative moment where imagination, listening, and experience intersect.



The session concludes with Collective Weaving. Using a piece of wool, participants and visitors create a visible network that symbolically connects people, desires, needs, and individual commitments. Each person adds one small concrete action they feel able to take to reduce their impact on the world. The resulting map becomes a tangible representation of the group's temporary community and shared reflection.



A brief closing moment brings everyone together. The group forms a wide circle, holding hands and stretching outward to maintain balance—a simple gesture that highlights interconnection and mutual support. Overall, the activity emphasises accessibility, reciprocity, and the creation of shared meaning. It enables all participants to explore sustainability, responsibility, and the relationship between people and the planet side by side.

## TIMING

10 min	<p><b>Welcome and introduction</b></p> <ul style="list-style-type: none"> <li>• Welcoming participants and visitors</li> <li>• Brief background information on the project</li> </ul>
10 min	<p><b>Warm-up and preparation</b></p> <ul style="list-style-type: none"> <li>• Light activation exercises</li> <li>• Listening and body</li> </ul>
25 min	<p><b>The desired world and the speaking world (alternate 3 times)</b></p> <ul style="list-style-type: none"> <li>• Group walks within the circle with free expression of wishes, images, and imagined worlds</li> </ul> <p>Across the threshold</p> <ul style="list-style-type: none"> <li>• Brief collective listening to the monologue of the speaking world (to get an idea of the monologue, see Annex 10 for the Italian text and an English translation).</li> </ul>
10 min	<p><b>Return to the desired world</b></p> <ul style="list-style-type: none"> <li>• Writing wishes within the circle</li> <li>• Reading wishes</li> </ul>
15 min	<p><b>The lived world: needs</b></p> <ul style="list-style-type: none"> <li>• Threshold removed</li> <li>• Photographs displayed in the space</li> <li>• Participants select an image that represents a personal need</li> <li>• Images placed within the circle</li> <li>• Brief comments from those who wish to speak</li> </ul>
10 min	<p><b>Speaking like the world</b></p> <ul style="list-style-type: none"> <li>• Participants briefly hold The globe</li> <li>• They express what the Earth might ask of human beings</li> <li>• The globe is passed from one person to another</li> </ul>
10 min	<p><b>Collective weaving and closing</b></p> <ul style="list-style-type: none"> <li>• Wool threads used to create connections between desires, needs, and commitments</li> <li>• Each person adds a small, concrete action they feel capable of undertaking</li> <li>• Final circle holding hands</li> <li>• Closing moment</li> </ul>

Materials	Settings	Topics
Floor circle, inflatable globe, markers, threads/post-its, Coaching cards	Large open space	<ul style="list-style-type: none"> <li>• desires</li> <li>• needs</li> <li>• Earth's voice</li> <li>• community</li> <li>• possibilities</li> </ul>

## REFLECTION QUESTIONS

### **How do you value participants' experience?**

- By creating a shared, non-hierarchical space where all participants contribute on equal footing, allowing different backgrounds, abilities and perspectives to shape the activity collectively.
- By treating participants' spontaneous words, choices and images as meaningful contributions that directly inform the flow of the session, rather than as additions to a predetermined plan.
- By adapting the rhythm and structure of the activity to the group's comfort level, prioritising clarity, accessibility and emotional safety over theatrical or performative expectations.
- By using simple, low-threshold actions (moving across a threshold, selecting images, placing objects, responding with short words) that enable everyone to participate regardless of confidence, literacy or expressive ease.
- By acknowledging the value of lived experience: the reflections that emerge from participants become shared material for collective meaning-making, ensuring the activity is shaped by the people present rather than by institutional assumptions.

### **How do you reinforce two-way dialogue among participants, facilitators, and experts?**

- By ensuring that any invited expert participates on equal footing with the group, contributing only as one voice among many and never as an authority delivering predefined answers or explanations.
- By allowing experts to intervene only in short, responsive moments, reflecting on what participants have already expressed rather than introducing external topics or framing the session from above.
- By making it clear that the format does not allow for lectures or top-down explanations: expert input is accepted only if it aligns with the horizontal, dialogic nature of the activity.
- By using shared actions and symbolic tools (circle, threshold, movement, images, the globe) so that the focus stays on collective meaning-making rather than on the expertise or status of any one individual.
- By encouraging experts to echo, deepen, or connect participants' insights - not to interpret them or redirect the process - thus maintaining a genuine two-way exchange.
- By structuring the session so that dialogue is generated by participants, with facilitators and experts responding to what emerges instead of shaping the flow through specialised knowledge.

## Appendix

### **When this activity is suitable**

- When the group is open to imaginative and reflective work, including symbolic actions, collective listening, and simple spatial transitions.
- When participants prefer low-threshold forms of expression, such as short verbal contributions, positioning in space, or choosing images rather than performing.
- When the facilitator can ensure a calm, supportive atmosphere, allowing participants to move between imagination, listening, and lived experience without pressure.
- When the aim is to explore sustainability, interdependence, and shared responsibility through experiential rather than didactic methods.
- When an invited expert (if present) is willing to participate on equal footing, offering short reflective inputs rather than lectures or authoritative explanations.

### **When this activity is less suitable**

- When participants expect or require clear, directive instruction, as the activity relies on openness, ambiguity, and participant-driven meaning-making.

- When the group is uncomfortable with symbolic spaces or reflective practices, such as imagining worlds, listening to a poetic text, or engaging with images.
- When time is too limited to allow transitions between the Desired World, the Speaking World, and the Lived World, since the alternation is essential to the structure.
- When the setting does not allow for movement, spatial division, or a quiet atmosphere needed for collective listening.
- When an invited expert insists on a top-down or instructional role, which would disrupt the format and undermine the dialogic nature of the session.

## 7. From field to table: food, culture and community

Designed and tested by: Slovene Ethnographic Museum, Ljubljana, Slovenia

### In brief

Duration	90 min
Number of participants	15-25
Number of facilitators	5 Two activities were led by representatives of the Roma community, two by museum experts, one by an expert from a company specializing in sustainable and nature-oriented gardening.
Special materials	<ul style="list-style-type: none"><li>• Vegetable seedlings, soil and mulch</li><li>• Municipal waste separation manual</li><li>• Trash (for demonstration purposes)</li><li>• Printed list of tips for reducing food waste in the household</li><li>• Food that represents Roma cuisine, plates and utensils</li></ul>
Objectives	<ul style="list-style-type: none"><li>• To engage the Roma community, which is rarely recognized as a relevant interlocutor, to the discussion about the challenges of food production and preparation.</li><li>• To enable the identification of the challenges faced by Roma in individual local communities with food production and preparation.</li><li>• To provide participants with the practical skills and confidence to engage in sustainable food production and preparation.</li><li>• Facilitating exchange between members of the Roma community and majority populations.</li></ul>
Tested with	Three different groups of members of the Roma community and one group of students from a Bilingual Secondary School operating in a multicultural environment, involving both the Roma community and the Hungarian minority.

### OVERVIEW

The educational activity consists of five workshops, each focusing on a different topic: sustainable gardening, herbalism, waste separation, reducing food waste, and preparation of traditional Roma dishes.

### Context

The activity was implemented in four different settings, each involving Roma communities in distinct ways. The first session was held at the Lendava People's University, located in an area with a large Roma population, and local Roma community was strongly involved in organizing and implementing the activities. Next, the activity was tested in a bilingual high school attended by Roma and Hungarian students, encouraging dialogue between youngsters from different cultural backgrounds and fostering mutual understanding through shared learning experiences. Additional session was organized at the premises of an NGO working closely with Roma families, creating a safe and familiar environment for participants to share their experiences. Final session took place at a Roma settlement hosted by the local Roma association,

where community members also actively participated in both the organization and facilitation of the activities.

## **SUGGESTED SCENARIOS**

This activity is designed and implemented in close collaboration with representatives of the Roma community, who are also the primary target group. Through a series of hub and co-creation meetings, museum educators and community representative identified the community's needs, interests, and expectations, while also recognizing potential risks and dilemmas. Together, they compiled a list of facilitators – both from within the Roma community and from other backgrounds – who possess relevant knowledge and experience in food cultivation and preparation. A key aspect of the activity is that it takes place in Roma community spaces, where participants feel comfortable and at home. The tone of the activity is intentionally informal and dialogical, rather than lecture based. Social interaction and community bonding are essential components of the experience.

## **Description**

The activity is organized as a dialogue event, divided into five parts. Each of these parts addresses a distinct theme using a unique approach.

The chosen topics were arranged in a meaningful sequence, starting with sustainable gardening, herbalism, sessions on waste management and using leftover food, and concluding with a presentation and tasting of traditional Roma cuisine. Educators and community representatives conducted the activities with each group on a flexible schedule, depending on the availability of facilitators and the specific dynamics of the participants.

## TIMING

At each location, facilitators adapted to the given conditions and group dynamics. The aim was to establish good contact at the beginning and, above all, to emphasize the participation of Roma in the design and implementation of activities. Co-organizers from the Roma community played an important role in organizing the activities, inviting participants, and supporting all facilitators during the whole process.

5 min

### Introduction

Begin with a warm welcome to all participants and introduce the facilitators. Briefly outline the purpose of the gathering and provide an overview of the activities planned for the session.

20 min

### Sustainable gardening

A permaculture expert introduces participants to the basics of gardening, offering practical advice on how to start and prepare soil for sustainable gardening. The participants plant lettuce seedlings as part of the hands-on activities.



Aljaž Plankl talks about preparing the soil for sustainable gardening in the garden of the founders of the Roma Association, June 6, 2025, Šentjernež. Image credit: Sandi Horvat.

20 min

### Herbalism

Facilitators from the Roma community present their association and various activities related to collecting herbs and making products from them. They present the devices they use to make herbal products, e.g. distiller for making hydrolates. Some of the products were available to smell (St. John's wort oil) and taste (tea).

10+10 min

### Recycling / Food waste

The group is divided into two smaller subgroups to create a more intimate atmosphere and encourage easier exchange of personal experiences and practices. One subgroup discusses recycling, while the other focuses on food waste. After 10 minutes, the groups switch topics.

20 min

### Preparation of traditional dishes

A Roma woman who researches and promotes traditional Roma food prepares selected dishes that were available for participants to try.

She combines the presentation of the food with a presentation of the history of the Roma. She also presented the food that Roma people used to eat and still eat today on special occasions and invited participants to share their memories of the food of their grandmothers and grandfathers and their experiences in preparing food. It turned out that some traditional holiday dishes were not present in all communities, so the activity was also a good opportunity for the Roma people themselves to share their heritage.



Traditional Roma food to try. Prepared by Sonja Horvat, Nova pot - Nevo drom association, Lendava, May 24, 2025. Image credit: Sandi Horvat

5 min

### Conclusion

The activity concludes with an evaluation of the satisfaction and usefulness of the activity for the participants.

Materials	Settings	Topics
<ul style="list-style-type: none"> <li>· Pens and paper</li> <li>· Vegetable seedlings, soil and mulch</li> <li>· Municipal waste separation manual</li> <li>· Trash (for demonstration purposes)</li> <li>· Printed list of tips for reducing food waste in the household</li> <li>· Table and chairs</li> <li>· Food that represents Roma cuisine, plates and utensils</li> </ul>	<p>Most activities were conducted outdoors, in gardens or lawns that allowed hands-on interaction with soil, plants, and waste-sorting materials, creating a direct connection with the environment. The herbalists' presentation took place in a semi-open space within their community, next to the herb garden, offering room to demonstrate tools and products. Traditional Roma food sessions were usually held indoors, with tables and utensils prepared for tasting, except for one version organized outdoors by the Roma association.</p>	<ul style="list-style-type: none"> <li>· Sustainable gardening</li> <li>· Herbalism</li> <li>· Waste separation</li> <li>· Food waste</li> <li>· Roma cuisine</li> <li>· Common heritage</li> </ul>

## REFLECTION QUESTIONS

### How do you value participants' experience?

Valuing a participant's experience is about more than just listening; it's about creating an environment where their knowledge and insights are essential to the process.

Facilitators paid extra attention to this in each activity by focusing on the participants' memories and current experiences. Each facilitator encouraged participants to share and ask questions about things that interested them. It was important to respect and value each voice, and to connect their stories with the broader conversation.

### How do you reinforce two-way dialogue among participants, facilitators, and experts?

Facilitators follow the principle of active listening and responding in a supportive and encouraging manner. They try to deepen the stories given by asking the speaker to add to it or get others' reactions to them. It was also important to use open-ended questions to avoid simple answers.

## FACILITATOR'S NOTES

The activities were carried out in an environment that was familiar and close to the participants. When working with a marginalized social group, creating a safe and relaxed environment is extremely important. It not only helps more people respond to the invitation, but also helps to share ideas, experiences and skills within the group. In order to prepare an effective activity, participants must be well informed about what will happen, how long the activity will last, and the topic covered. It is important to start from their own experiences, interests and needs, so it is invaluable to first inform yourself about the specific situation in the area that interests us in the activity.

## FACILITATOR'S INSIGHTS:

### What made the activity work well in this context?

Participants felt at home in the locations where the activities took place.

The themes were closely connected to their everyday life – practical, relatable, and easy to translate into concrete actions. This made it easier for participants to implement what they learned in their own households. Group connection was strengthened through shared experiences during the activities. Sharing a table of food at the end contributed to a relaxed and friendly atmosphere.

### **What difficulties emerged (e.g., emotional, relational, logistical)?**

For the successful implementation of the activity, it is important that participants are informed about the content, duration and planned activities upon invitation. In one case, communication between participants and the organizer was weaker, resulting in less interest from participants and them leaving the activity early before implementing artistic workshop.

This was also challenging for the facilitators, both in terms of communication with the group and emotionally, as the activity implementation was unpredictable. This experience once again confirmed our usual rule of connecting with community members and organizing and developing activities together.

### **Did any part of the format or facilitation style need to be adapted?**

Facilitators adapted the implementation of these activities to each individual group, and depending on the dynamic that developed, they occasionally omitted certain activities in some groups. Adaptations were made based on time constraints, group dynamics, and attendance.

## **Appendix**

### **When this activity is suitable**

This activity is most effective when working with a specific group with a shared background that have already expressed their own interest in the chosen topic.

It is most appropriate when both the organization and design of the activity content are carried out with representatives of the target group, who express their needs, interests, desires, and also obstacles to implementing the activity. It is crucial that the activity takes place in a safe and pleasant environment, allowing participants - who often face discrimination and stereotypes - to relax and share openly.

### **When this activity is less suitable**

An activity is less suitable if it is carried out in the local environment of the target group without prior engagement with its representatives. In these cases, activities are often less relevant, especially for marginalized groups, and less likely to be attended by an acceptable number of people.

### **Additional resources**

Združimo se!: a video of educational and artistic activities:

<https://video.arnes.si/watch/fw5vnbscq4c0>

## 8. Cooking traditions: sharing the heritage of food preparation

Designed and tested by: Slovene Ethnographic Museum, Ljubljana, Slovenia

### In brief

Duration	50 min
Number of participants	15-20
Number of facilitators	2
Special materials	No special materials are needed
Objectives	<ul style="list-style-type: none"><li>• To sensitize participants to the topic by engaging both body and mind.</li><li>• To value participants' personal experiences and memories.</li><li>• To explore community heritage together with participants.</li><li>• To affirm and celebrate the community's cultural heritage through the exploration and sharing of traditional food narratives and practices.</li><li>• To preserve heritage narratives within the museum as a special archive, thus giving value to an often-overlooked legacy.</li></ul>
Tested with	39 members of the Roma community.

### OVERVIEW

After creative activities that sensitized the participants to the topic, production and preparation of food in Roma communities, in the past and today, were explored. It allowed to recognize the experiences and knowledge of the participants which were recorded for the newly established archive of Roma heritage that will be kept by the Slovene Ethnographic Museum.

### Context

The activity was tested in two distinct settings involving Roma communities.

At the premises of the Lendava People's University, a location with a large Roma population that is more integrated into the majority population; however, they still face greater economic and social inequalities. It was also implemented at the premises of a Roma association that focuses on collecting and using herbs. This community is located in an area where the Roma population faces harsh economic and social challenges.

### SUGGESTED SCENARIOS

To make the activity informal and easy to implement, it should be conducted within the community's own environment. If possible, hold the activities outdoors or in a cozy room to create a relaxed atmosphere. You don't need any specialized tools or a particular setting for the artistic components. Afterward, you only need a bench and a table to sit around and talk. The recording of the selected heritage narratives should be done at a later time, based on an individual agreement between the cameraman and each person being interviewed.

## Description

The activity is best carried out after educational activities, when participants already have some general knowledge about the chosen topic. It is best to start with artistic activities that activate their body and mind at the same time. These activities help to relax and connect the chosen topic with a personal perspective. This is followed by a conversation exploring the views, memories and experiences of the participants. The final step is to record their stories in order to preserve their memories and experiences.

### TIMING

The group gathers around the facilitators and stands. This activity is ideally implemented after the educational ones, as it assumes the group members already know each other.

3 min	<p><b>Introduction</b></p> <p>The facilitator convenes the group, invites them to a new activity and explains its course and goals. She emphasizes that their experiences, memories and perspectives on food production and preparation are important and should be explored together, as they form an important community heritage. She tells the participants that first there will be creative activities that will lead to a conversation on the topic.</p>
12 min	<p><b>Social theatre techniques</b></p> <p>The activity starts with implementing social theatre techniques designed to sensitize participants to the topic, establish a relaxed, friendly atmosphere, and help to build trust among participants and between the group and the facilitator. Because the activity is carried out after the educational activity, the participants already know each other and there is no need to exchange names. Instead of that, each participant shares a favorite dish that their grandparents used to prepare. This opens up personal memories and creates a natural bridge to the topic of food heritage.</p> <p>The facilitator then asks the participants to arrange themselves along an imaginary line from yes to no, according to their opinion on the question asked. The questions chosen were as follows:</p> <ul style="list-style-type: none"><li>• "Do you have a garden at home?"</li><li>• "Did your parents or grandparents grow food?"</li><li>• "Did your elders teach you how to collect herbs?"</li><li>• "Do you know and collect herbs?"</li><li>• "Do you like to cook?"</li><li>• "Do you like to eat well?"</li></ul> <p>As the participants spread out on the imagined line, the facilitator asked them why they were there and also encouraged dialogue among themselves. The purpose of these techniques is to encourage participants to make a personal connection with the topic, in our case, food harvesting and preparation. The discussion in the Roma community showed that their ancestors had valuable knowledge about food, but much of it has been lost. The purpose of these exercises is to help rekindle this connection with the past.</p>

30 min

### Moderated discussion

In a moderated discussion, questions were addressed about how food production and preparation have changed over time, what is the impact of climate change they have to deal with when growing vegetables, and what type of food is traditionally eaten for the holidays or at other occasions. It was also discussed how knowledge and skills related to food production and preparation have been passed down through generations, and what has been lost as the community has better integrated into the wider society. The discussion also drew attention to stereotypes related to food production and preparation, e.g. in relation to a certain type of food and method of preparation, and drew attention to the practices of begging, which were more common in rural areas in the past.

This conversation also serves as a basis for collecting and later recording some of the shared stories identified as relevant. It allowed us to identify good speakers who can narrate their memories and experiences and talk about Roma heritage in an interesting way.

The resulting archive will have the aim to contribute to the growing collection of personal and shared narratives related to food, heritage and the everyday life of Roma.



Discussion with Roma in Prekmurje on the topic of traditional food production and preparation, May 24, 2025, Lendava. Image credit: Sandi Horvat

5 min

### Conclusion

The activity ends with a short evaluation in order to share participants feedback, as well as suggest what topics could be further explored.

Materials	Settings	Topics
No tools are needed to implement this activity.	<ul style="list-style-type: none"> <li>· Outdoor space</li> <li>· Table and chairs</li> </ul>	<ul style="list-style-type: none"> <li>· Evolution of food practices and traditions</li> <li>· Climate change and community resilience</li> <li>· Food, identity, and social stereotypes</li> <li>· Personal and intergenerational food memories</li> <li>· Preserving traditional knowledge for the future</li> </ul>

## REFLECTION QUESTIONS

### How do you value participants' experience?

The participants' experiences were at the heart of this activity. Using social theatre techniques opened up the topic and encouraged them to connect with their own experiences, memories, practices and reflections on the topic of food production and preparation. This led to a moderated discussion where they exchanged their stories and often built on the interventions of others. By activating the body first, this contributed to greater relaxation, which is especially important for the Roma community, as they often feel excluded and less understood by the majority. The entire moderated discussion placed them and their experiences at the center.

### How do you reinforce two-way dialogue among participants, facilitators, and experts?

A two-way dialogue was established and maintained by asking questions, encouraging participants to contribute, and above all, by creating a pleasant atmosphere. The facilitators showed genuine interest in the topic and wanted to learn more, which made the participants feel accepted and their stories valued. In both Roma settlements, time has run out, as the participants still had many stories to tell. The facilitators were from the museum, but it was very important that a representative of the Roma community was also part of these discussions, as his presence made the participants feel better and more secure. He also helped us identify good speakers and good stories that are interesting for the Roma archive in the museum.

## FACILITATOR'S NOTES:

The activity was tested in an environment both close to and in the Roma community itself. The first activity was held on the premises of the Lendava People's University, where Roma are also employed as organizers and implementers of activities, which makes the institution more successful in attracting participants to their activities.

The second was carried out at the location of the Roma association in another part of Slovenia where it is extremely hard to guarantee participation. With hope that the activity, co-organized and partly carried out by the Roma themselves, would attract as many participants as possible. Both activities were carried out outdoors, with the good weather contributing to a good atmosphere.

The activity could be adapted to another setting, such as museums, as shown in "**Exploring heritage of food production and preparation for future action**", where educational activities were replaced with the exhibition tour that served a similar purpose.

### What made the activity work well in this context?

The activity was successful because it was carried out in an environment that was geographically close to the target group, familiar to them and made them feel safer. It was also important that the activities were co-organized by representatives of the Roma community.

The fact that representatives of the Roma community proposed a topic that was current and that most people could identify with also contributed to its success.

It was created a relaxed and pleasant atmosphere in which participants felt that their experiences, memories, and reflections had value and were important. The group sizes were also appropriate, especially the second one (12 participants), which contributed to the ease of implementation.

#### **What difficulties emerged (e.g., emotional, relational, logistical)?**

Since the activities were co-organized by Roma representatives, and the organizers from the Museum had not visited the locations before, it was necessary to adapt the activities to the possibilities (space, time, availability of participants).

This required a bit more improvisation and flexibility.

#### **Did any part of the format or facilitation style need to be adapted?**

It is important to ensure that the groups are not too large. It would be wise to visit the locations where the activities are being carried out in advance and work out the details.

## **Appendix**

#### **When this activity is suitable**

This activity is most suitable when the goal is to invite a selected group of people with a shared background to explore their memories, experiences, and perspectives together. In the case of Roma participants, a shared cultural heritage provided a strong foundation for connection and engagement. This activity is most appropriate when it is possible to provide a safe and pleasant environment that allows participants, who otherwise face discrimination and stereotypes, to relax and share with each other.

#### **When this activity is less suitable**

An activity is less suitable when it is carried out in an environment that the target group does not perceive as their own. It is also less suitable when they participate in the activity for various benefits, rather than for their own interest.

The activity is intended to encourage people who are otherwise less accustomed to open dialogue and exchange to approach a certain topic openly and with a desire for exchange.

#### **Additional resources**

TIM Toolkit. A practical guide output of the Theatre in Mathematics project produced by SCT Centre, describing in detail many theatre exercise, part of the TIM methodology.

<https://old.theatreinmath.eu/outputs/tim-methodology/>

## 9. Tastes of memory: exploring the heritage of food and community

Designed and tested by: Slovene Ethnographic Museum, Ljubljana, Slovenia

### In brief

Duration	90 min
Number of participants	15-20
Number of facilitators	2
Special materials	No special materials are needed
Objectives	<ul style="list-style-type: none"><li>• Encourage reflection on participants' personal relationship to the topic, valuing their individual experiences.</li><li>• Inspire participants to consider possible future actions based on the practices of their ancestors – heritage as a source of inspiration for the future.</li><li>• Foster a sense of connection within the group.</li><li>• Collect personal, family, and community stories and memories shared by the participants.</li></ul>
Tested with	25 members of the Roma community and 29 long-term unemployed individuals in a social activation program

### OVERVIEW

Through social theatre techniques, participants are sensitized to the topic of food production and preparation. A guided tour deepens their understanding and provides cues for further discussion.

### Context

The activity was tested at the Slovene Ethnographic Museum in Ljubljana,

### SUGGESTED SCENARIOS

The activity is designed to take place in a museum setting, intended for a group of visitors from similar social backgrounds. Participants' personal experiences are connected with the heritage preserved and exhibited in the museum, encouraging deeper reflection on the present and inspiring possible future actions.

### Description

This activity was not carried out after educational activities, but was organised as an independent activity. The activity started with simple social theatre techniques, followed by interactive guided tour and moderated discussion.

## TIMING

The group gathers around the facilitators and stands. This activity is ideally implemented after the educational ones, as it assumes the group members already know each other.

5 min

### Introduction

Briefly present the project and provide an overview of the activities that will follow.

15 min

### Social theatre techniques

The session begins with creative activities designed to sensitize participants to the topic and establish a relaxed, friendly atmosphere. These exercises aim to build trust among participants and between the group and the facilitator.

The start is a simple warm-up activity: participants form a circle and take turns using their hands to "send" their names like an arrow to someone else in the circle. This name exchange not only helps participants get to know one another but also fosters a sense of connection within the group.

The facilitator participates as an equal member, ensuring that everyone is included and engaged. Next, each participant shares a favorite dish that their grandparents used to prepare. This opens up personal memories and creates a natural bridge to the topic of food heritage.

This is followed by a movement-based activity using an imaginary line. Participants position themselves along the line according to how they relate to a series of statements, such as:

- "Do you have a garden at home?"
- "Did your parents or grandparents grow food?"
- "Did your elders teach you how to collect herbs?"
- "Do you know and collect herbs?"
- "Do you like to cook?"
- "Do you like to eat well?"

To find their place on the line, participants must speak with each other, which encourages interaction and strengthens group bonds.

The purpose of these theatre techniques is to invite the participants to form a personal connection to the topic – one that was selected by Roma representatives through hub and co-creation meetings. Many feel that while their ancestors had valuable knowledge about food, much of it has been lost.

These exercises aim to help rekindle that bond with the past.

The final shared reflection – that everyone enjoys good food – serves as a unifying point, making it easier to open up a discussion about food production and preparation, both past and present, with a specific focus on participants' cultural heritage.

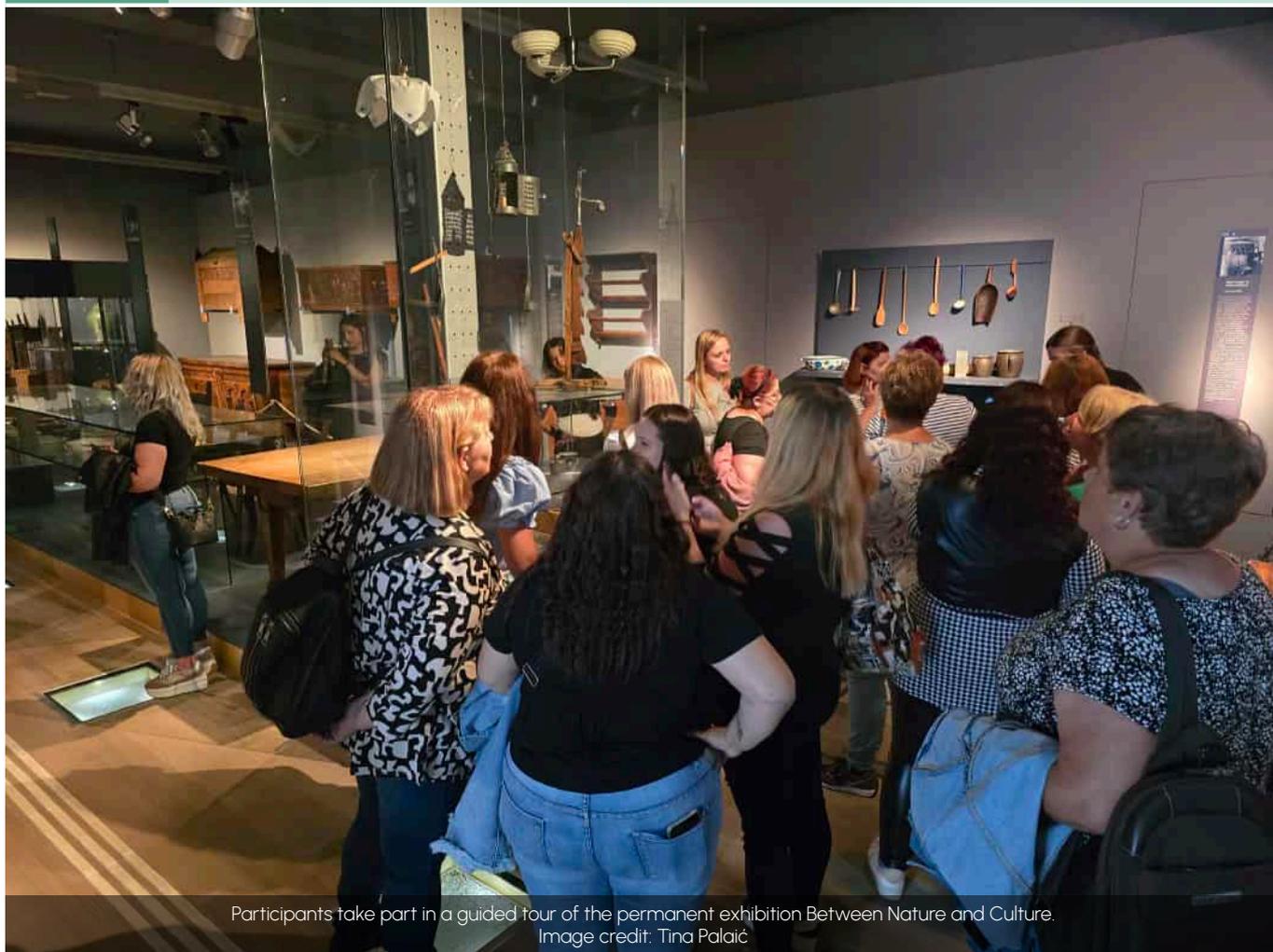
Through these activities, the experiences and knowledge of the participants are recognized and valued.

45 min

### Guided tour

Participants take part in a guided tour of the permanent exhibition Between Nature and Culture, with a focus on topics such as food production, processing, nutrition, and customs related to food. The tour is conducted in a conversational and interactive atmosphere, encouraging participants to share personal memories and reflections as they engage with the exhibits.

The content of the exhibition serves as a starting point for deeper reflection and discussion in the following part of the activity.



Participants take part in a guided tour of the permanent exhibition Between Nature and Culture.  
Image credit: Tina Palačić

20 min

### Moderated discussion

The discussion builds on the memories and thoughts that emerged during the exhibition tour. The goal is to create a space where participants feel encouraged to share their personal stories, connect with one another, and reflect more deeply on the themes of the activity.

This conversation also serves as a basis for collecting and later recording some of the shared stories, contributing to a growing database of personal and communal narratives related to food, heritage, and everyday life of Roma.

5 min

### Conclusion

The activity concludes with an invitation for participants to share their feedback and reflections of the experience.

Materials	Settings	Topics
Table and chairs for moderated discussion; pens and Post-it notes for collecting participant feedback and evaluating the activity.	An open space large enough to allow participants to move around comfortably. Exhibition. A designated area with a table and chairs for moderated group discussion.	Food production and consumption, heritage, environmental adaptation, societal adaptation, intergenerational transmission of knowledge.

## REFLECTION QUESTIONS

### **How do you value participants' experience?**

Participants' personal experiences are placed at the core of the activity.

Establishing a personal connection to the topic is essential, as is fostering a sense of community.

The use of the body and physical presence in space at the very beginning emphasizes embodied experience, going beyond just verbal narratives. This holistic approach values both lived experience and storytelling.

### **How do you reinforce two-way dialogue among participants, facilitators, and experts?**

Two-way dialogue is encouraged from the very beginning of the activity. The facilitator plays a key role by intentionally creating a safe, inclusive, and respectful environment where everyone feels heard and valued.

Rather than positioning themselves as the authority, the facilitator participates as an equal member of the group, guiding the process while remaining open to input, questions, and shared experiences.

This approach fosters trust and openness, enabling participants to actively engage with one another and the facilitator in meaningful conversation.

## FACILITATOR'S NOTES

The activity was originally designed to take place in a museum setting, but it can be adapted for use in community spaces. For example, in "Exploring heritage of food production and preparation", the exhibition tour was replaced with educational activities that served a similar purpose.

The activity was implemented twice. During the first session, the museum was closed to the general public; during the second, it remained open. The closed setting proved more effective, particularly at the beginning and the end of the session. Without outside visitors, participants felt more relaxed and comfortable, which encouraged openness and engagement in the group activities.

It is also important to consider group size. Smaller groups allow for more effective discussion. In our experience, facilitators occasionally worked with subgroups to ensure that everyone had the opportunity to share personal stories and reflections, as the conversation often sparked many associations and memories.

### **What made the activity work well in this context?**

The relaxed and welcoming atmosphere played a key role in the success of the activity. Additionally, the topic – food and related traditions – was familiar and easy for participants to relate to on a personal level. This accessibility encouraged active engagement, sharing of stories, and meaningful connections within the group.

### **What difficulties emerged (e.g., emotional, relational, logistical)?**

Both test groups were relatively large due to high interest in the activity.

As a result, facilitators had to invest significant energy into ensuring that everyone felt heard and included. Maintaining active listening and group cohesion became more challenging in a larger setting. Smaller groups are therefore preferred, as they allow for deeper dialogue, more personal sharing, and easier facilitation.

### **Did any part of the format or facilitation style need to be adapted?**

Yes, facilitators adapted the format by dividing participants into subgroups when needed, particularly during the moderated discussion.

## **Appendix**

### **When this activity is suitable**

This activity is most effective when participants already know each other and share a similar social environment, as it helps to deepen existing ties and build trust. In the case of Roma participants, a shared cultural heritage provided a strong foundation for connection and engagement. For unemployed participants, the topic itself served as a unifying element, temporarily bringing them together as a group through shared experiences and reflections.

### **When this activity is less suitable**

This activity may be less suitable when participants are unwilling to share personal insights or engage in open discussion. However, it is intentionally designed in a way to gently encourage participation, even from individuals who may be less accustomed to dialogical formats. Additionally, if the participants come from very diverse heritage backgrounds without a shared point of connection, it may be harder to create a cohesive group dynamic and common ground for discussion.

### **Additional resources**

TIM Toolkit. A practical guide output of the Theatre in Mathematics project produced by SCT Centre, describing in detail many theatre exercise, part of the TIM methodology.

<https://old.theatreinmath.eu/outputs/tim-methodology/>

## 10. Climate collages

Designed and tested by: ScienceCenter-Network, Vienna, Austria

### In brief

Duration	75 min
Number of participants	15-20
Number of facilitators	2
Special materials	<ul style="list-style-type: none"><li>• Printed pictures of great variety around the topic of climate change for collage cutting</li><li>• Optional: Magazines or newspapers for collage cutting</li></ul>
Objectives	<ul style="list-style-type: none"><li>• Valuing participants personal experiences and emotions connected to climate change</li><li>• Enabling participants to express climate change through personal images and creative expression</li><li>• Building dialogue between different perceptions and feelings, encouraging connection and action</li><li>• Discover personal relevance and connections to the topic, learn from each other's expressions of opinions and feelings</li></ul>
Tested with	Unemployed or job-seeking women between the ages of 20 and 25 in a program for career guidance, knowledge expansion, and support in finding vocational training or employment.

### OVERVIEW

Through a guided imagination exercise, participants reflect on their personal perceptions of and feelings about climate change. They then sketch and share their mental images working in pairs to create collages that represent these visions. The activity combines reflection, dialogue, and creativity.



4 Climate Collages made by Future Factory participants.  
Image credit: Nina Kramer, Copyright SCN

## Context

The activity is conducted with a local association supporting young women in finding vocational training or employment. The activity is part of a workshop about climate change that the women can voluntarily sign up for beforehand.

### SUGGESTED SCENARIOS

The scenario is a workshop in a room with at least two tables (preferably more) and chairs for drawing and collage-making. In the beginning of the workshop the participants and facilitators are sitting around one table to welcome the group and explain the activity, but can further split in smaller teams, during the progression of the workshop, to create a more intimate and time saving environment for sharing thoughts and emotions.

The assigned room was capable of 14 participants for which the group usually is divided in 2 of 7 participants each. The activity is designed for informal group settings (community centers, schools, cultural associations, youth groups, etc.). A quiet and safe space is needed where participants can close their eyes and engage in an imagination exercise without interruption.

## Description

The format combines a guided imagination exercise, individual sketching or writing, small group sharing, and collaborative collage-making. Participants are first invited to visualize personal images of climate change, then capture them on paper, share within a group, and finally work in pairs to create an artwork together.

### TIMING

The group is seated around the table on chairs together with the facilitators.

After a calm imagination exercise, participants sketch or draw individually what they imagined during the exercise, then share their pictures in the large group, and finally work in pairs for the collage making. For the collage making it is optional to work in pairs and participants can also work alone.

10 min	<b>Introduction</b> <ul style="list-style-type: none"><li>• Welcome of the participants and brief round of introductions (for example participants could be asked to tell the name and a funny fact happened recently)</li><li>• Explanation of the activity. Emphasize the personal and creative aspect of the activity, it is not about sharing factual knowledge. The activity aim at exploring what climate change means to personally and to use imagination, emotions, pictures, and creativity, to express this.</li><li>• Presentation the introduction and guideline script to the participants (see in Annex 1: Facilitator scripts for imagination exercise)</li></ul>
5 min	<b>Imagination exercise</b> <ul style="list-style-type: none"><li>• Invite the participants to stand up, spread out in the room and shake their bodies briefly to relax.</li><li>• The exercise can be conducted while standing or being seated depending on the participants preference.</li><li>• Facilitator reads the imagination script (Annex 1: Facilitator scripts for imagination exercise) very slowly, guiding participants to close their eyes and visualize personal images of climate change. It is important to emphasize the validity of all images and feelings. The pictures can be abstract or realistic. Importantly, they cannot be wrong! Whatever picture comes up in association to climate change is the right picture for the person.</li></ul>

10 min

### Sketching and individual reflection

- Participants sketch their images very roughly on paper. They may also add short notes, words, or colors connected to their vision. They can also write down what they saw if preferred.
- Make clear that aesthetic qualities are not important here. The sketch serves as a tool to quickly capture one's own image and help sharing it with other people.

5 min

### Sharing in groups

- Participants split into two smaller groups with 5-10 people each.
- Each person briefly shares their image/sketch with the group. Facilitator encourages active listening and identifies common themes.



20-35 min

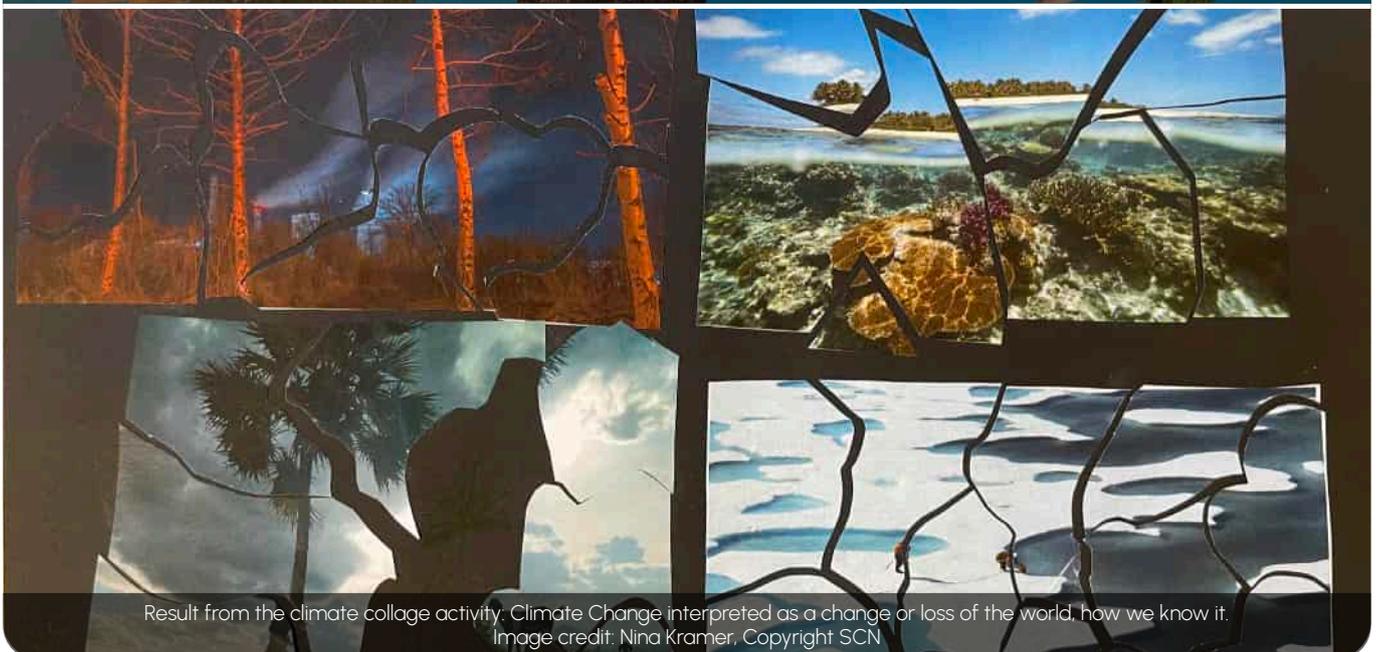
### Collaborative collage making

- Participants pair up with someone else whose image or theme feels connected to theirs. After each pair creates a collage on A3 paper, combining elements from their sketches and using additional materials (cut-outs, colors, words, drawings). Facilitator ensures that pairs have enough time but also keeps momentum.

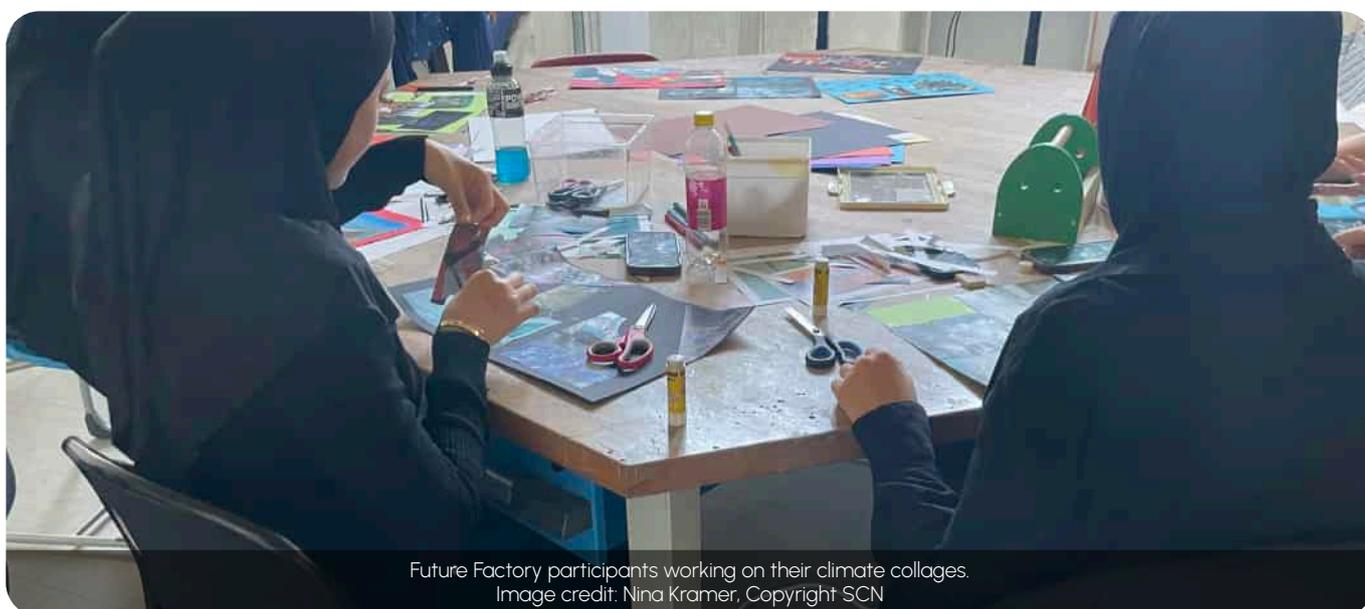
10 min

### Conclusion: presenting collages

- All collages are displayed for the group.
- Each pair briefly presents their artwork (feelings represented, key images, favorite part of the collage, whether anything feels missing).
- Facilitators and other participants can ask questions or comment on what they like about the image.
- The group applauds each presentation.
- The activity ends with a collective reflection on the artworks and the diversity of images connected to climate change. Facilitators may invite participants to notice commonalities, differences, and surprises across the collages.



Materials	Settings	Topics
<ul style="list-style-type: none"> <li>· Printed pictures of great variety around the topic of climate change for collage cutting</li> <li>· (e.g. Protests, fires, landscapes, diverse people, drought, flooding, forests, ice, factories, renewable energy, globes, vehicles, cities, satellite images, etc.)</li> <li>· Optional: Magazines or newspapers for collage cutting</li> <li>· Script for imagination exercise (see Annex 1: Facilitator scripts for imagination exercise)</li> <li>· A4 sheets of white paper for sketches</li> <li>· A3 sheets of colored and white paper for collages</li> <li>· Optional: Decorative paper with patterns, colors,</li> <li>· Scissors, glue sticks</li> <li>· Pens, colored pencils</li> </ul>	<ul style="list-style-type: none"> <li>· Indoor space with calm atmosphere</li> <li>· Tables and chairs for working</li> </ul>	<ul style="list-style-type: none"> <li>· Climate change and environment, threats and solutions, migration, nature... depending on the chosen pictures and the participants associations with the topic.</li> <li>· Personal emotions, perceptions and relations to climate change</li> <li>· Creativity and imagination as a tool for dialogue</li> <li>· Collaboration and group work</li> </ul>



Future Factory participants working on their climate collages.  
Image credit: Nina Kramer, Copyright SCN

## REFLECTION QUESTIONS

### How do you value participants' experience?

Participants' personal experiences are placed at the center of the activity. The imagination exercise explicitly validates all kinds of images and feelings as equally meaningful. Sketching, sharing, and collage-making are less about artistic skills but about expressing inner visions.

This approach ensures that each participant's unique perspective is seen and valued by the group.

### How do you reinforce two-way dialogue among participants, facilitators, and experts?

Dialogue is fostered at multiple stages: first when participants share their sketches in small groups, then when pairs negotiate and merge their visions into a collage, and finally during the collective presentations. The facilitator creates a safer space and ensures equal speaking time and positive feedback culture.

## FACILITATOR'S NOTES

### What made the activity work well in this context?

- The target audience chose for this creative exercise in a co-creation meeting due to the liking of creative working with pictures and the collage making in particular
- Safe space, participants already knew each other
- The imagination script helps participants to connect with the topic in a very personal and emotional way.
- Working in pairs lower the pressure to perform and encouraged collaboration.
- The collage-making process create a playful atmosphere that balanced the seriousness of the topic.

### What difficulties emerged (e.g., emotional, relational, logistical)?

- Logistical: calm environment needed, no disturbance/noise
- Some participants could thinking that the activity aims at testing their knowledge
- Some participants can feel insecure about drawing, so facilitators had to emphasize that sketches could be very rough, or even described with words
- Participants need to have at least some perceptions or ideas about climate change. Exercise does not work if they have never heard about it.

### Did any part of the format or facilitation style need to be adapted?

The activity is the starting creative part of a two-part workshop. The workshop starts with the collage activity and proceed with the second part: educational activity about CO2 physics and emission mitigation measures (CO2 experiments and discussion on climate change).

The Creative collage is a valid way to open discussions about personal relations to the topic and emotions, the following activity is more fact-based activities. Unfortunately, participants ended up making collages that were only representing their factual knowledge about climate change and maybe found themselves in an exam like setting.

Changing the order of sequences and moving the collage making activity after other educational activities made it easier to communicate to the participants that this activity is about their personal feelings and perspectives not about their knowledge. There has not been a need to discuss basic knowledge or conceptions because the basic concepts were covered earlier with the educational activity (CO2 experiments..) and people could concentrate on the personal meaning of it. Further, some kind of trust relationship was built already with the group.

If the group is more insecure about sharing personal thoughts and has little or no opinion on the topic, additional topic related activities beforehand are beneficial. The exercise still works well on its own, with people who are used to sharing their opinions and have already strong conceptions about climate change, as figured this during the design process.

## Appendix

### When this activity is suitable

- When groups already have a minimum level of trust and are open to reflective/creative approaches.
- When the setting allows for quiet concentration and safe sharing.
- With groups who have at least some ideas about climate change. It can also be conducted with people who are very informed

### When this activity is less suitable

- In contexts where participants are under extreme stress or trauma, as imagination exercises may trigger overwhelming emotions.
- In highly formal or time-limited events where creativity and open sharing cannot unfold.

- In noisy or open public spaces without privacy.
- With participants who have never ever heard anything about climate change

#### **Additional resources**

- <https://www.climatevisuals.org/>  
online image library related to climate change. Many are public domain for reuse.
- Annex 1: Facilitator scripts for imagination exercise

# 11. CO<sub>2</sub> experiments and discussion on climate change

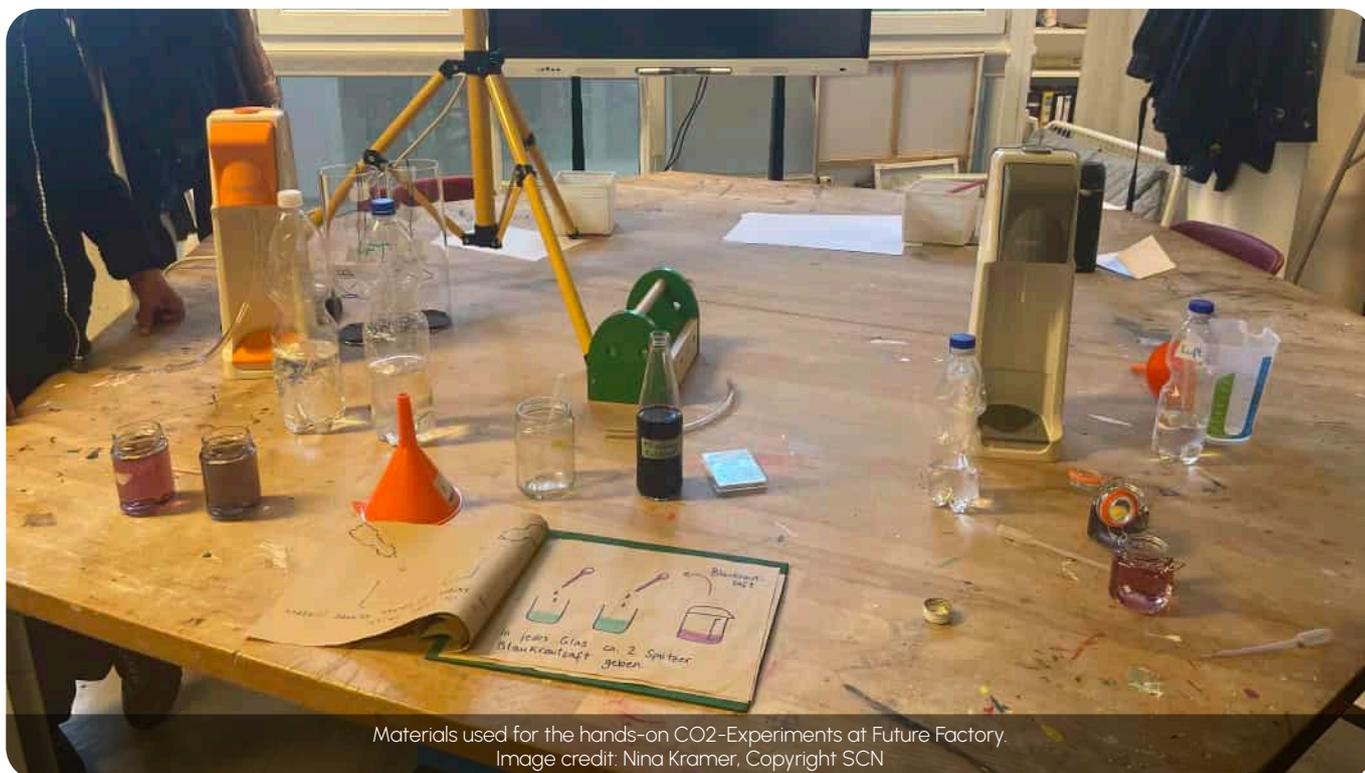
Designed and tested by: ScienceCenter-Network, Vienna, Austria

## In brief

Duration	120 min
Number of participants	10-20
Number of facilitators	2
Special materials	Basic laboratory and household materials for science experiments: CO <sub>2</sub> source (e.g., Sodastream, effervescent tablets, or baking powder + vinegar); transparent plastic bottles with lids; halogen or infrared lamp; thermometer or digital temperature sensor. A natural pH indicator can be prepared by boiling red cabbage in water for 15 min and using the colored juice as a test solution.
Objectives	<ul style="list-style-type: none"><li>• Demonstrate the scientific principles of CO<sub>2</sub>'s role in climate change and ocean chemistry</li><li>• Engage participants with tangible experiments to enhance understanding of complex climate processes</li><li>• Increasing self-awareness as a learner by conducting experiments and discussion of personal observations</li><li>• Facilitate discussion and reflection on societal measures for climate mitigation and adaptation</li><li>• Encourage dialogue between participants and facilitators on climate perspectives</li><li>• Connecting scientific and societal perspectives on climate change</li></ul>
Tested with	Unemployed or job-seeking women between the ages of 20 and 25 in a program for career guidance, knowledge expansion, and support in finding vocational training or employment.

## OVERVIEW

Participants explore consequences of increased CO<sub>2</sub> emissions through two hands-on experiments demonstrating greenhouse effect and ocean acidification. This is followed by a discussion game that encourages reflection on potential societal responses to climate change in Austria 2040.



Materials used for the hands-on CO<sub>2</sub>-Experiments at Future Factory.  
Image credit: Nina Kramer, Copyright SCN

## Context

The activity is conducted with a local association to support young women in finding vocational training or employment. The activity is part of a workshop about climate change that the women can voluntarily sign up for beforehand.

### SUGGESTED SCENARIOS

The activity is designed for classrooms, community centers, or youth workshops with at least two tables for experiments and for the discussion game. Participants can be seated or stand around tables for the experiments. The facilitator guides both scientific demonstrations and the group discussion, providing support and encouragement for participants.

## Description

Moderated workshop with two main parts:

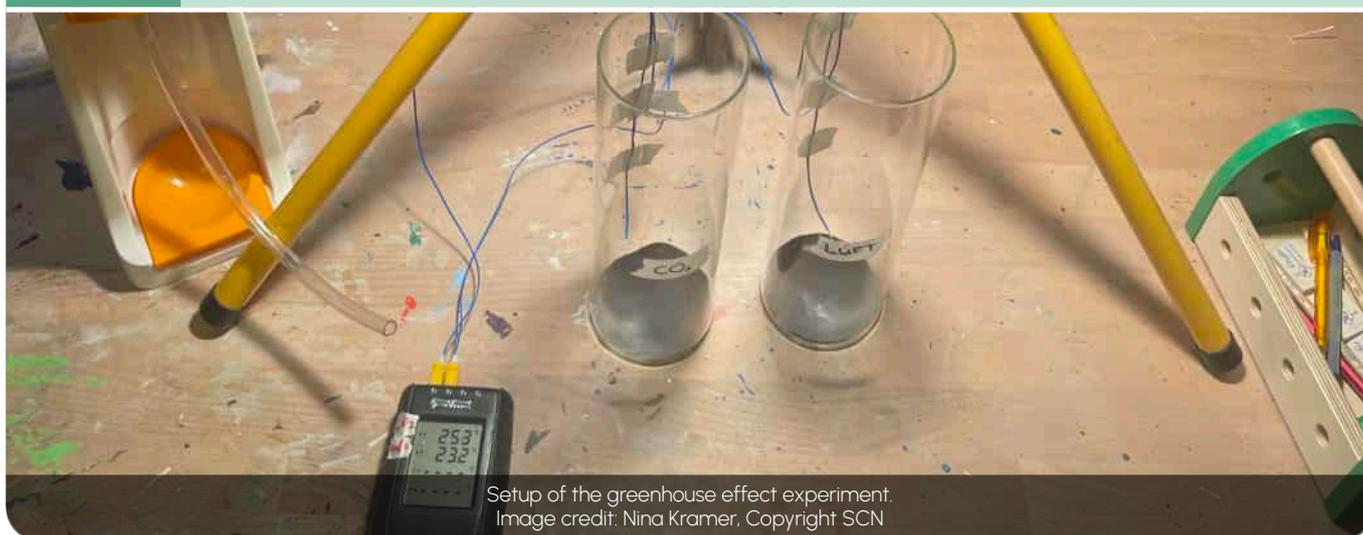
1. Hands-on scientific experiments illustrating CO<sub>2</sub>'s impact on global temperature and ocean acidity.
2. A collaborative discussion game "Climate-Perspectives" to explore societal responses, political measures and future scenarios, to mitigate CO<sub>2</sub>-emissions

### TIMING

Participants are seated around tables for experiments and the discussion game. To increase the level of participation, participants stand up to conduct the experiments themselves. The facilitators should conduct as little as necessary during the experiments but provide step-by-step guidance and moderate discussions about the observations within the group. Facilitators also give necessary explanations of certain processes and theoretical knowledge for interpretation of the experiments.

For the discussion game, the facilitator again acts mainly as moderator for discussion about the provided future scenarios on cards and should not introduce its personal opinions, but can provide background knowledge if necessary. The outcome of discussions should reflect the opinions and preferences of the participants and not a certain reality, truth or ideal outcome.

15-20 min	<p><b>Introduction</b></p> <ul style="list-style-type: none"> <li>• Welcome and brief round of introductions (name + optional fun fact)</li> <li>• Explain schedule using a flipchart or whiteboard</li> <li>• Short discussion about climate change (questions about CO<sub>2</sub>, greenhouse effect) to assess participants prior knowledge</li> </ul>
20 min	<p><b>Greenhouse effect experiment</b></p> <p>Prepare beforehand:</p> <ul style="list-style-type: none"> <li>• two identical tall bakers/jars with black paper on the bottom</li> <li>• Insert temperature sensors, fix these in the lower third of the jars at equal distances from the walls in the center, (sketch in the Annex 3: Greenhouseeffekt experiment)</li> <li>• Ensure initial temperature is equal in both jars (it can help to blow into both jars, or warm one jar carefully from outside with your hands)</li> </ul> <p>Explain the experiment to the participants and encourage them to conduct the experiments themselves. It is ideal to have enough material to be able to perform the experiment twice simultaneously. That way, more participants can actively take part in the experiments.</p> <p>Greenhouse effect experiment:</p> <ul style="list-style-type: none"> <li>• Introduce CO<sub>2</sub> into one vessel (via Sodastream or chemical reaction). As CO<sub>2</sub> is heavier than air, it should stay in the vessel.</li> <li>• This creates two models of the atmosphere, one with normal air, and the other strongly enriched in its CO<sub>2</sub>-level.</li> <li>• The black paper on the bottom serves as model for the earth surface which absorbs light and emits infrared radiation.</li> <li>• Illuminate the lamp, our model of the sun and observe temperature changes.</li> <li>• The temperature measurement in both Jars will rise. The beaker filled with CO<sub>2</sub> should be warming much quicker than the one filled with air. If conducted correctly, the temperature will reach a stable difference of 1-3°C.</li> <li>• Discussion with the group: what did we observe? Discuss take-home message: CO<sub>2</sub> traps heat in the atmosphere, because CO<sub>2</sub> molecules absorb infrared radiation, discuss importance of control the experimental settings, discuss scientific process and methods.</li> </ul>



Setup of the greenhouse effect experiment.  
Image credit: Nina Kramer, Copyright SCN

20 min

### Ocean acidification experiment

- Explain experiment and let participants conduct it themselves guiding sketches for conduction of the experiment are in the Annex 4: Ocean acidification experiment
- Fill bottles with water to approximately 1/3, ensure same volume of water in both bottles and introduce CO<sub>2</sub> gradually in one bottle, mark the bottles
  - note: both bottles are completely full! 1/3 is filled with Water and the rest is CO<sub>2</sub> or air respectively.
- Shake bottles to demonstrate gas dissolution, discuss what we observe: The bottle filled with CO<sub>2</sub> is shrunk together due to the dissolution of the gas in the water, reducing its volume.
- Pour the water from both bottles in separate beakers and mark them accordingly.
- Use pipettes to add red cabbage indicator solution and observe the change of color.
- The acidified water (where CO<sub>2</sub> has dissolved) has a magenta color while the color of the normal (neutral) water should be darker and more purple/bluish.
- The difference in color should indicate in an aesthetic way that something in the water chemistry has changed due to the dissolution of CO<sub>2</sub>
- Optional: Take pH test strips and use them according to the description, to measure pH of the water. (this is usually conducted, by putting a strip in the water solution and match its color indicators with the template of the respective pH)
  - The purple blue (neutral) water should have a pH close to 7.
  - The magenta-colored water with added CO<sub>2</sub> will likely have a pH between 5 and 6, what is considerably sourer (acidification)
- Discuss: CO<sub>2</sub> can dissolve in water and makes it sourer due to the formation of carbonic acid, this happens in soda drinks as well as in oceans, relate to the ocean as an important carbon sink, relate to household knowledge such as acidity dissolves lime, discuss negative effects on ocean organisms with limestone skeleton (Corals, Shells, crabs or certain algae).



Participants using red cabbage juice as acidity indicator.  
Image credit: Nina Kramer, Copyright SCN



Participants measuring pH of the two different water solutions.  
Image credit: Nina Kramer, Copyright SCN

### Climate perspectives discussion game

The game contains several game cards with future scenarios of Austria 2040, where certain measures are in place to mitigate CO2 emissions (like speed limits for cars, reduced meat consumption, Restoration of bogs and forests, etc.)

- 2 additional cards should mark the endpoints of 2 continuum scales (likely/unlikely; desirable/undesirable), Set up the first continuum "unlikely – likely"
- Participants read a card describing a future scenario/measures for climate protection.
- Discuss whether scenario is likely/unlikely, place card on the continuum
- Pick more cards and place each scenario before, after or between the others after a small discussion. The measures should be ranked in order and not be put next to each other.
- After all cards are placed, flip the continuum cards to "desirable – undesirable"
- Restart the discussion and if necessary, change the order of the cards according to the desirability ranking of the participants.
- Discuss differences and personal opinions, encourage dialogue on climate justice and societal responsibility
- Optional: participants can read background information on the backside side of the cards during discussions or afterwards

35-45 min



Participants ranking CO2 reduction measures by desirability.  
Image credit: Nina Kramer, Copyright SCN



Participants discussing likelihood of implementation of CO2 reduction measures.  
Image credit: Nina Kramer, Copyright SCN

15 min

### Conclusion

The activity ends with:

- Summarize learnings from the experiments and possible social measures to mitigate the problems discussed in the card game.
- Reinforce understanding of environmental effects of CO2 and the role of collective climate action
- Encourage reflection: What individual or societal actions are feasible? Do we want to live in a CO2 neutral society? Do we want to continue the lifestyle as we have it now, with heavy emissions and warming?

Settings	Topics
Tables, chairs, power outlet	Climate change, greenhouse effect, CO2 cycle, ocean acidification, climate protection, societal adaptation, political measures, climate justice
Materials	
<p>Experiments:</p> <p><b>Ocean Acidification Experiment</b></p> <ul style="list-style-type: none"> <li>· CO2-source (one of the following or other): <ul style="list-style-type: none"> <li>· Sodastream, or similar household device for generating fizzy drinks with CO2</li> <li>· baking powder + vinegar and laboratory bottle with tube dispenser</li> </ul> </li> <li>· 4 identical transparent plastic bottles (0,5 or 1.5 L) with thin walls and lids</li> <li>· Water, funnel, 4 small beakers, pipettes</li> <li>· Indicator solution and pH test strips: indicator solution can be easily home made with red cabbage: Cut red cabbage into small pieces and cook for 15 minutes in water. Pour red cabbage juice in a bottle or jar and use as indicator. Add preservatives and keep in fridge, if you want to prepare it for later use.</li> <li>· Tape + marker, optional buckets for waste</li> </ul> <p><b>Greenhouse Effect Experiment</b></p> <ul style="list-style-type: none"> <li>· CO2-source (options as above):</li> <li>· Halogen lamp (200-500 W) alternatively you can also use an infrared lamp at much lower power</li> <li>· Precise and sensitive temperature sensor with thermoelement/thermocouple</li> <li>· 2 identical high jars or beakers for 2 atmosphere models, black paper for the bottom of jars (we used jars with 10cm Diameter and 30cm height. Other dimensions are possible but should be tested before)</li> <li>· Tape, marker, optional buckets for waste</li> </ul> <p><b>Discussion Game:</b></p> <ul style="list-style-type: none"> <li>· climate-perspectives game cards (2 sets: text &amp; images) images of original cards (in German) and translated English content of cards in Annex 2: Climate Perspectives</li> </ul>	

## REFLECTION QUESTIONS

### How do you value participants' experience?

Hands-on experiments allow participants to witness CO2 effects directly, making abstract concepts tangible. The discussion game provides a structured opportunity to voice opinions and see diverse perspectives, valuing each participant's contribution.

### How do you reinforce two-way dialogue among participants, facilitators, and experts?

Dialogue is facilitated during experiments through guided observations and questioning, and during the discussion game through negotiation and placement of scenarios on the continuum. Facilitators moderate discussions, so all opinions of participants can be heard and affect the group decisions, and add additional information on the scenarios if requested by the group. Facilitators do not direct the outcome of the game towards a certain direction, but help to create a space for peer-to-peer exchange and learning.

## FACILITATOR'S NOTES

### What made the activity work well in this context?

The participant's background is very diverse, and they participate in the career guidance program for various reasons (problems with or lack of formal education, migration history, language barriers, various disabilities, etc. ).

The hands-on experiments engage participants in an easy way and are less susceptible to different knowledge levels and knowledge gaps. They produce visible and tangible results of abstract and complicated concepts (greenhouse-effect, acidification) and learnings

are strengthened as they can be concluded from observations the participants made themselves. The discussion game initially introduces possible solutions to the problems. This adds maybe positive aspects to the whole topic, although not all the measures are likely to be implemented and/or are very desirable.

The discussion game sparks debate and reflection. The opportunity to express their own opinion – what usually has a visible effect on group choices – was valued by participants, who otherwise probably feel powerless in climate discussions. The combination of new factual inputs through the cards and opinions about those from other participants has the possibility to enable new perspectives for everybody.

### **What difficulties emerged (e.g., emotional, relational, logistical)?**

Good preparation and testing of materials and experiments in advance are necessary.

Sensitive experiments require careful supervision (e.g., thermometers, lamps, CO<sub>2</sub> sources, pH indicators), and a wind free environment, i.e. no fans etc.

Reliable, functioning setups help to maintain group attention and trust.

The physical results of the experiments are visible and engaging, but the larger implications for the world must be drawn out through discussion. Mediators should be relatively well-versed in the scientific content and in the measures presented in the discussion game, so they can clarify misconceptions and guide debate productively. This requires the ability to connect small-scale results to global climate dynamics.

The discussion game may surface potentially problematic or controversial views (e.g., denial, stereotypes, misinformation). This possibility requires sensitive navigation by the facilitators to ensure constructive dialogue. Attentive moderation is necessary to balance power imbalances between participants and maintain respectful communication between all.

## **Appendix**

### **When this activity is suitable**

- When groups are curious and interested about science behind global warming
- When facilitators are confident with both scientific content and group moderation.
- In groups open to hands-on activities and critical discussion. Works also well for audiences with different basic knowledge and learning abilities

### **When this activity is less suitable**

- With audiences who have never been introduced to the topic of climate change or the role of CO<sub>2</sub>

### **Additional resources**

- Sketch of Greenhouse Effect Experiment setup (Annex 3: Greenhouseeffekt experiment)
- Sketches and step by step guidance of acidification experiment (Annex 4: Ocean acidification experiment)
- Discussion-Gamecards (German) and translated content (English) (Annex 2: Climate Perspectives)

## 12. A garden journey: exploring community, culture and ecology

Designed and tested by: Ethnological Museum, Berlin, Germany, Roksolana Ludyn, Südost Europa Kultur e.V.

### In brief

Duration	150-165 min
Number of participants	6-20
Number of facilitators	1-3 Optional translator, manager of the community garden, expert on plants
Special materials	Herbs, vegetables, roses etc. which can be harvested and prepared
Objectives	<ul style="list-style-type: none"><li>• Explore community gardens as ecological systems and spaces of cultural exchange</li><li>• Encourage participation, dialogue, and shared learning among diverse communities</li><li>• Highlight gardening as cultural expression and ecological stewardship</li><li>• Raise awareness of plants as carriers of memory, identity, and intergenerational knowledge</li><li>• Strengthen connection to local nature through sensory activities and shared meals</li><li>• Foster intercultural connection, empowerment, and environmental responsibility</li><li>• Understand traditional plant knowledge and its role in local and global sustainability</li><li>• Compare gardening practices and food systems across cultures and regions</li><li>• Reflect on environmental and social impacts of monocultures and imported food</li><li>• Reflecting on global connections between agriculture and climate change</li></ul>
Tested with	17 Ukrainian and Bosnian refugee women.

### OVERVIEW

In a workshop held in an intercultural community garden in the center of Berlin, participants explored the ecological and cultural significance of community gardens. Participants learned about the importance of green spaces in cities, got an introduction of the intercultural community garden "Rosenduft", its plants and activities as well as an introduction about a project at the Ethnologisches Museum in Macucu, Colombia, focusing on its community approach and the "library" of traditional medicinal and cultural plants.

The activity invited dialogue on local and global gardening practices, food systems, and sustainability.

A shared meal from garden ingredients was prepared together with the participants. The workshop fostered intercultural exchange and understanding of gardens as spaces of knowledge, connection, and environmental education.

## Context

A community garden with plants, herbs and a workshop space.

### SUGGESTED SCENARIOS

A community garden with enough free space for a group to sit and prepare food together and have a discussion. To be conducted in summer or early fall, when plants and herbs can be harvested. A welcoming and non-judgmental atmosphere is important, especially towards participants with little knowledge about plants.

## Description

The Ethnologisches Museum conducted this activity in collaboration with Roksolana Ludyn, a freelance guide for Ukrainian target groups and with Begzdada Alatovic, who manages the intercultural community garden "Rosenduft" on behalf of the association Südost Europa Kultur e.V. Within the community garden, Begzada Alatovic supports Bosnian refugee women in shaping the garden together with the neighborhood. She also helps them process their war experiences and encourages them to work voluntarily alongside diverse people, fostering a sense of belonging and rooting themselves in Berlin. On a separate day before: it was organized an informal get together in the garden with the Bosnian refugee women who live in Berlin for a longer period and meet there regularly with Ukrainian refugee women who came to Berlin after 2022.

### Workshop in the community garden

**Part 1:** Introduction to the Community Garden and Park in Gleisdreieck, a municipally managed park featuring a comprehensive sustainability concept that seamlessly integrates recreation and ecology. Andrea Scholz presented her project on community gardens in Macucu, Colombia and shares how the neighborhood participates, the significance of the garden, the concept of a "library" of traditional medicinal and cultural plants. The participants were invited to discuss local and global gardening practices, food systems, and sustainability with references to the ecological balance of local and imported fruit and vegetables, as well as the consequences of monoculture cultivation in Colombia.

**Part 2:** Guided tour through the garden with explanations of the plant species and herbs, and how they are used for various products in the garden workshop. Explanation of plants brought from the Bosnian participants' homeland, such as okra pods or a special Bosnian rose used for rose syrup. A shared exchange about plant varieties that participants remember from their homeland or associate with it. Collecting berries and herbs together, for preparing a meal as a group.

**Part 3:** Joint preparation of food from the garden for a simple shared meal.

### Reflection questions for audience

- Which plants in the garden reminded you of your own home or childhood? Why?
- What role do gardens play in your culture or community?
- How did it feel to work with others in the garden today? What did you enjoy or find meaningful?
- What new plant, herb, or story did you discover that surprised or inspired you?
- How can gardening help people feel more at home in a new place?
- What do you think are the benefits of growing food or herbs yourself?
- What connections do you see between gardening and caring for the environment?
- Is there a recipe, plant, or gardening tradition from your homeland that you would like to share?
- How can we use gardens to bring different communities together?
- What would you like to plant in a future garden and why?
- How can growing your own food or herbs help reduce environmental impact?

- What connections do you see between small gardens and global climate challenges?
- How can traditional plant knowledge contribute to more sustainable ways of living?



In the intercultural community garden 'Rosenduft', participants exchange experiences and traditions with herbs.

### TIMING

- Part 1: Short inputs on the intercultural community garden "Rosenduft", the Park nearby and a colombian community garden, including translation and discussion (approx. 45 min.)
- Part 2: Guided tour through the garden (approx. 45-60 min.)
- Part 3: Discussion while preparing food and eating together (approx. 60 min.)

Materials	Settings	Topics
<ul style="list-style-type: none"> <li>• Herbs, vegetables, roses etc. which can be harvested and prepared</li> <li>• A translator if necessary</li> <li>• Snacks and drinks like coffee, tee and e.g. lemonade with ingredients from the garden</li> <li>• Dishes, cutlery, tableware</li> <li>• Tables, chairs and/or benches</li> </ul>	<p>The activity takes place in a community garden, combining open-air collective moments with small-group practice. A space for plenary exchange is needed for presentations and storytelling, while tables or outdoor cooking areas are useful for tasting and preparing food together. No formal setting is required beyond ensuring an accessible and welcoming environment.</p>	<p>Personal experiences and expertise with plants, biodiversity, local vs. international perspectives on community gardens and sustainability, regional effects of global climate change, traditional plant knowledge and its transmission, sustainable food practices, cultural exchange, strengthening community participation and a sense of belonging.</p>



Exploring the Stadtheide – Nature and connection with the following caption: Begzada Alarović Begzada explains the plant species and herbs.

## REFLECTION QUESTIONS

### **How do you value participants' experience?**

This activity integrates scientific information on plants as well as cultural experiences from the participants and the communities presented. In this way, participants are invited to share their perspectives with their peers as well as with the facilitators and experts.

Also, the facilitators motivate the participants to ask questions to topics they are like to know more about to guide the discussions towards aspects the participants are really interested in.

### **How do you reinforce two-way dialogue among participants, facilitators, and experts?**

Open questions support opportunities to bring in own experiences, ideas and also questions.

Also asking directly for the participants experiences and emotions create entry points for discussions among the participants. Hands-on materials like plants or products made out of plants help to foster curiosity and discussions about what participants are interested. Hands-on materials also work as entry points for participants to bring in their experiences and expertise and share it with their peers. In this activity facilitators specifically asked for traditional plants, cultural techniques or plant knowledge which participants can remember from their families or their home.

The participants' experience is valued also by emphasizing that sharing experiences is important to build collective knowledge about different kinds of expertise, traditions and myth.

## FACILITATOR'S NOTES

- It makes it a lot easier for the process if all participants can speak at least a simple level of the same language and understand each other directly. If it needs translators, it can lead to lose momentum of sharing and discussing things directly with each other or the persons sitting near each other
- Most of the input has to be brought in by the questions and short information engaging the discussion. When situated in a garden and with the perspective to be active, participants want to explore and discuss with each other rather than listening to long lectures

### **What made the activity work well in this context?**

This activity is especially suitable to support intercultural exchange with different target groups and for participants who are interested in the topic of gardens and plants or have experiences to share with the group.

### **What difficulties emerged (e.g., emotional, relational, logistical)?**

If the target groups speak too many different languages or if there are not enough participants who can help out translating. One translator as support for the facilitator(s) will not be enough to bridge language barriers.

## Appendix

### **When this activity is suitable**

This activity is especially suitable to support intercultural exchange with different target groups and for participants who are interested in the topic of gardens and plants or have experiences to share with the group.

### **When this activity is less suitable**

If the target groups speak too many different languages or if there are not enough participants who can help out translating. One translator as support for the facilitator(s) will not be enough to bridge language barriers.

## 13. Connecting with nature: yoga, awareness and insect encounters

Designed and tested by: Ethnological Museum and Grün Berlin, Berlin, Germany

### In brief

Duration	120-150 min
Number of participants	6-20
Number of facilitators	3-4 Park management or alternatively expert on green urban planning, expert on the ethnologic perspective on Yoga, Yoga instructor (could also be one person), insect specialist.
Special materials	<ul style="list-style-type: none"><li>• Green space, if possible with a wild meadow nearby</li><li>• Yoga mats, catch tubes with foam plugs, Children`s butterfly net</li><li>• Flyers on insects, their habitats and biodiversity loss from Bunte Wiese Stuttgart:</li></ul>
Objectives	<ul style="list-style-type: none"><li>• Valuing participants personal experience</li><li>• Collecting participants perspective on the topic climate change and environment in urban context</li><li>• Dealing with participants perspective and emotions towards insects: is there fear, disgust, reservations or any other negative emotions? Finding approaches to still spark interest in insects.</li><li>• Connecting multiple perspectives on climate change: scientific, cultural, personal</li><li>• Familiarize participants with the local public spaces, the concept of sustainable parks and their value for the climate resilience of large cities</li></ul>
Tested with	7 members of the Ukrainian refugee community

### OVERVIEW

Participants explored human-environment relationships through insights into a park's sustainability strategy and the cultural background of yoga and how it is related to human-environment relations, followed by a mindfulness session. The group then discussed the role of insects in urban ecosystems, collected and identified specimens, and reflected on biodiversity, habitat loss, environmental change and discussed what individuals can do on a small scale to protect the insects and their habitats.

### Context

The activity was conducted in cooperation with Grün Berlin (Anja Aylin Aydogan, Environment educator), who is managing most of Berlins green spaces. By conducting activities outside the museum building, the museum aimed to counteract the hierarchy and interpretive authority that the museum exudes through the presentation of its collection in the exhibition and also through its location in the Humboldt Forum. To his end, the museum implemented targeted activities in different urban spaces, some of them at the neighborhood level. The museum also aimed to reach its target groups and a more diverse audience closer in their

everyday environment in a low-threshold manner. The cooperation with Grün Berlin enabled various activities to be carried out in green spaces in different Berlin districts.

This activity took place in the "Park am Gleisdreieck", as its relatively recent history and focus on sustainability, as well as its recreational value for local residents, provide a particularly suitable setting for the educational and experiential elements of the activity.

To deepen the topics of human-environment relations the educational input was combined with a soft Yoga and Mindfulness session as an exercise in perceiving the environment with one's own body and all the senses. The workshop on insects on the other hand emphasized on a hands-on experience and concludes with a lively discussion to encourage participants to take action and leave with a feeling of hope.

## **SUGGESTED SCENARIOS**

Outdoor/ green space, if possible actively managed by the city administration, meadow with wild plants, during spring/summer/early fall, daytime and not too late (because of the insects activity time span), dry weather and mild temperature.

We suggest working together with authorities who are in charge of a park or green space.

The scenario is a meadow in a safe and a bit quieter area of the park.

The participants had to register before but it was also possible to join spontaneously.

## **Description**

### **WELCOME & INTRODUCTION OF THE ACTIVITY, SEARCHING A PLACE ON THE MEADOW**

#### **Part 1 – short lecture by Grün Berlin on the Park am Gleisdreieck and its sustainability strategy**

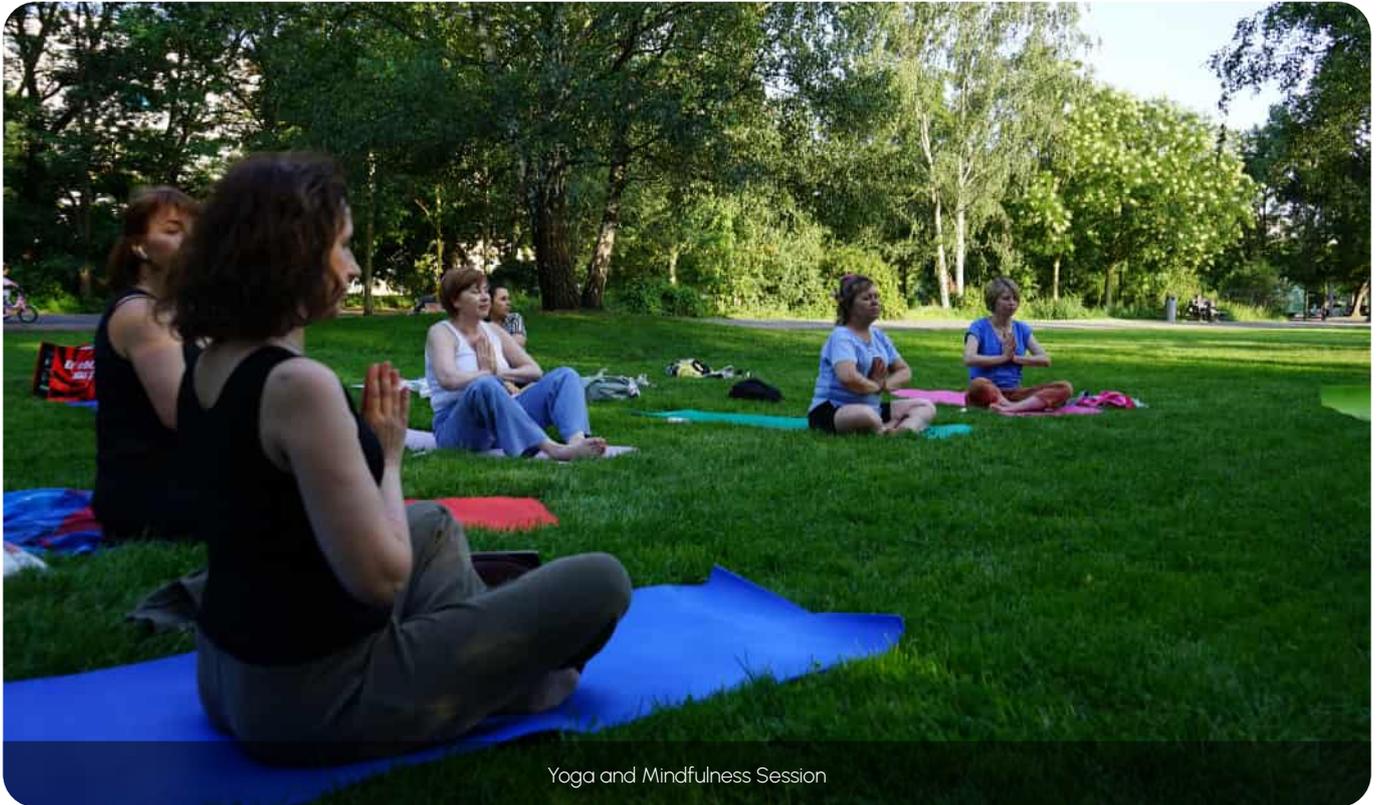
The topic of human-environment relationships was approached by learning about the park's sustainability strategy: Between 2011 and 2013, the "Park am Gleisdreieck" was transformed from a former wasteland into a climate-resilient urban green space. As part of the "GartenLeistungen" (garden services) project, the park enhances ecosystem services like cooling, biodiversity, and water management which are crucial for adapting to urban heat and drought. In "real laboratories", citizens help test sustainable solutions that meet ecological and social needs. Its meadows, woods, and community gardens support biodiversity and reduce the urban heat island effect. Connected to Berlin's green infrastructure, the park improves accessibility and strengthens climate resilience, demonstrating how urban parks can help combat climate change. This input leads to a discussion about in what way nature is important for the participants on a personal level and what aspects they think from their everyday experiences are important on an urban level.

#### **Part 2 - short lecture input by Ethnologisches Museum (SPK) on human-environment relations in other cultures with the example of yoga and mindfulness**

The topic of human-environment relationships was broadened by gaining insights into the history and cultural background of yoga and its perspective on the connection between humans and nature. Yoga has its roots in ancient India and is more than just physical exercise, it is a spiritual path that inseparably connects body, mind, and nature. In many non-Western cultures, such as Indian traditions, nature is seen as a living part of the cosmos, with which harmony is sought. Mindfulness also originates from Buddhist practices and promotes awareness of the present moment as well as a respectful life in harmony with the environment. Unlike the often dualistic view in the West, yoga and mindfulness emphasize the interconnectedness of all living beings and support an attitude of compassion and responsibility towards nature and other creatures.

### Part 3 – Yoga and Mindfulness Session

In the practical part, participants were invited to take time to become present and open to their surroundings through a guided yoga session. The session began with gentle movements, stretches, and breathing techniques to help participants to relax and become more aware of their connection to the environment. Finally, a short guided meditation encouraged participants to connect deeply with nature and their shared habitat. Brief reflection with the participants: How does the connection to nature feel in this moment? An invitation to carry this attitude into everyday life with more mindfulness, greater respect for nature, and appreciation for other cultures that value the connection to nature more deeply.



### Part 4 – Exploring and getting to know local insects

During the yoga session, an insect specialist scanned the surroundings for insects and caught some individuals in plastic containers for demonstration. They were observed and released by the participants during the discussion round, which followed the yoga session.

During the discussion about insects, participants collected and identified some insects themselves. Although insects face severe biodiversity loss, they still thrive in even small patches of wild nature, like a flower pot by a window. Their needs, wild plants and undisturbed nesting sites, can be met with little effort. The input lecture referred to the Krefeld Study, highlighting the drastic decline in flying insect populations and raising awareness among policymakers. Key topics of the educational part included the ecosystem services insects provide, causes of their decline, and how to identify insect groups like flies and wild bees.

To counter fear and sadness about biodiversity loss, the importance of wild plants was also discussed. Flyers from "Bunte Wiese Stuttgart" offered practical tips on food plants for wild bees and facts about insect decline. The workshop ended with a stroll along the edge of the meadow, getting to know important host plants for insects. Overall, the message was emphasized how much fun and insight can come from taking a closer look at the world around us.



Observation and release of insects by the participants during the discussion.

### **TIMING**

- Part 1 - short lecture input by Grün Berlin on the "Park am Gleisdreieck" and its sustainability strategy (approx. 15 min. including Q&A)
- Part 2 - short lecture input by Ethnologisches Museum (SPK) on human-environment relations in other cultures and the cultural and historic context of yoga and mindfulness (approx. 15 min. including Q&A)
- Part 3 - Yoga and Mindfulness Session (app. 30-45 min.)
- Part 4 - Exploring and getting to know local insects (app. 45-60 min)

### **REFLECTION QUESTIONS FOR THE PARTICIPANTS**

- In what ways has your understanding of the relationship between humans and the environment changed through the ethnological perspectives shared?
- What new insights did you gain about the importance of insects for our ecosystem?
- How does a personal connection to nature feel for you?
- What small changes can you make in your daily life to respect and protect nature more consciously?
- How does mindfulness help you sharpen your perception of the environment?
- What surprised or moved you the most during the workshop?
- What role do you think communities and cultures play in promoting sustainable relationships with nature?
- How could you share what you learned with others or bring it into your community?
- What challenges do you see in maintaining a connection to nature in modern everyday life?

Materials	Settings	Topics
<ul style="list-style-type: none"> <li>· Green space, if possible with a wild meadow nearby</li> <li>· If necessary, a translator</li> <li>· Yoga mats, catch tubes with foam plugs, Children's butterfly net</li> <li>· Flyers on insects, their habitats and biodiversity loss from Bunte Wiese Stuttgart:</li> <li>· <a href="https://www.buntewiese-stuttgart.de/media/files/01_insektensterben.pdf">https://www.buntewiese-stuttgart.de/media/files/01_insektensterben.pdf</a></li> <li>· <a href="https://www.buntewiese-stuttgart.de/media/files/02_nahrung-fuer-wildbienen.pdf">https://www.buntewiese-stuttgart.de/media/files/02_nahrung-fuer-wildbienen.pdf</a></li> </ul>	<p>As the activity takes place in a community garden, no specific setting arrangement is required.</p> <p>The outdoor environment itself provides the context for learning, exchange, and collective action.</p>	<p>Climate change, environment, biodiversity loss, human-environment-relations, wild nature and its importance for urban ecosystems</p> <p>With this activity, the museum aims to combine the cultural and physical aspects of experiencing nature with insights into urban sustainability strategies for dealing with climate change and a participatory research-based educational activity.</p>

## REFLECTION QUESTIONS FOR THE DESIGNER/FACILITATOR

### How do you value participants' experience?

Before each activity, the facilitators initiated a dialogue between the participants about their previous experiences, interests, feelings, fears, and knowledge with regard to yoga and mindfulness, but also with regard to insects. This allowed the participants to receive individual support during the activities and to incorporate their experiences into the activities. Even participants who were initially reserved were valued, as they were able to contribute their curiosity and interest in observing the insects at their own pace and to their own extent by first observing the other participants interacting with the insects.

### How do you reinforce two-way dialogue among participants, facilitators, and experts?

Open questions support opportunities to bring in own experiences, ideas and also questions. Also asking directly for the participants experiences and emotions create entry points for discussions among the participants. Hands-on materials help to foster curiosity and discussions about what participants experience or observe in the exact moment. Also point out surprising facts or fun aspects which make participants laugh and feel at ease with the topic help to reduce barriers to bring in own experiences and perspectives.

## FACILITATOR'S NOTES

- The mix of varied modules worked well: input/ educational formats, body movement, practicing observing own emotions and the environment, opportunity to explore the insects of the environment hands-on
- Difficulties: It is better to find the exact spot for this activity before but spontaneous changes may be necessary (large noisy groups nearby, construction work, etc.). It could be necessary that the insects expert catches the insects beforehand to make sure the group can observe and discuss a few individuals. In educational formats experienced experts can also guide the participants to catch insects themselves. However, it is not certain, that the participants will be able to catch insects themselves. It is therefore important to catch insects already during the Yoga session to be prepared.

## Appendix

### When this activity is suitable

- The group needs a bit of an existing trust bond, especially regarding the yoga module and the exploring of the insects, but it also helps if some individuals of the community already know the

- facilitator or the translator to create a trustful atmosphere also for newly interested participants
- The yoga module has to be created responsive on the groups interest. It was announced very light exercise sessions so that the exercise would be accessible to everyone. If the group is interested, the difficulty level of the exercises can be increased spontaneously.
  - It needs a free space which is also not overly populated by visitors, so it also provides a bit of privacy
  - It helps to feel safe if the green space is managed by the municipality.
  - The absence of groups that appear dangerous or dominant is important.
  - The activity aims to exploring the green space, insects and doing exercises outside: it is a summer activity which needs sunny weather, Ideally during the day, as there are fewer insects in the evening

### **When this activity is less suitable**

- Activities with a part of reflecting inwards in general like emotions, the perception and thoughts of the moment are not suitable for individuals or groups of high levels of unprocessed trauma
- In places with limited privacy or safety
- Complex instructions (e.g., mindfulness, insect identification) are inaccessible without multilingual materials or interpreters.
- Some communities may view yoga or meditation as foreign or inappropriate, especially if not presented in a secular, culturally sensitive way.

### **Additional resources**

• [Park am Gleisdreieck - English website](#)

• [Kowarik2015Gleisdreieck\\_Howurbanwildernessbecamepossibleinthenewpark.pdf](#)

Lichtenstein, Andra/Mameli, Flavia A. (Hrsg.) (2015): Gleisdreieck: how Urban Wilderness Became Possible in the New Park. In: Dies. (Hrsg.): Gleisdreieck / Park Life Berlin. Bielefeld: Transcript, S. 216–221. DOI: 10.14361/9783839430415-025

## 14. Protective beings – The superpowers of nature

Designed and tested by: Yorlery Cardozo Peña and Ethnological Museum, Berlin, Germany

### In brief

Duration	120-150 min
Number of participants	6-15
Number of facilitators	2-3 (translator optional, local biodiversity/animal habitat expert, expert on cultural perspectives on human-animal relations)
Special materials	<ul style="list-style-type: none"><li>• Digital microscopes, insects samples, soil samples, seeds, a herbarium,</li><li>• Profile cards with different animals and their characteristics</li></ul>
Objectives	<ul style="list-style-type: none"><li>• Valuing participants personal experience</li><li>• Collecting participants perspective on the topic biodiversity and human-animals-relations</li><li>• Connecting multiple perspectives on biodiversity: artistic, cultural, biological, personal</li><li>• Familiarize participants with the local animal species and compare them to other species in their homeland and in Colombia.</li><li>• Fostering an understanding of how various animal species influence Berlin's urban ecosystem and what key elements are vital for their survival.</li><li>• The importance of cultural perspectives on the relationship between humans and animals and the perception of animals as coexisting partners in a shared ecosystem.</li><li>• References to the context of global climate change and its regionally varying manifestations may be considered.</li></ul>
Tested with	6 Ukrainian women and 3 children

### OVERVIEW

Participants explored animal symbolism in the intervention *La voz de la montaña* by artist and educator Yorlery Cardozo Peña and reflected on human-animal connections. In an artistic research laboratory, the participants examined insects, soil, and seeds from Colombia under digital microscopes and created drawings. A discussion about local species from Berlin complemented the global view. In the last part, participants created personal protective figures. The workshop aimed to connect artistic, biological, and cultural perspectives on biodiversity, while valuing personal experiences and exploring human-animal relationships across contexts.

### Context

On Occasion of Yorlery Cardozo Peña's CoMuse fellowship at the Ethnological Museum, the workshop "Protective Beings – Nature's Superpowers" was tested with Ukrainian refugee women and children. The Workshop starts with a visit in the exhibition discussion artists intervention *La voz de la montaña*, a Panorama which presents historic indigenous statues with animal traits of the Archaeological Park of San Agustín, but also the landscape, flora and fauna

of the park. The hands-on parts of the workshop take place in the museums' workshop space, so participants have enough space to explore and be creative. To connect the insights from Colombia and the Archaeological Park of San Agustín with the local fauna, the museum invited Daniela Pasdzierny, an environment educator from Grün Berlin, for an interactive format on the "super powers" and surprising characteristics of local animals.

## **SUGGESTED SCENARIOS**

A workshop room with enough table space for the artistic research lab and the creation of the protective beings. A piece of art as example of an artistic approach on the relation of culture and nature as well as human-animal relations.

This workshop has to be adapted for other contexts but there are plenty opportunities to link cultural or artistic topics of other institutions to the artistic research lab and the other parts of this activity.

## **Description**

### **Part 1**

On the occasion of the CoMuse fellowship of Colombian artist Yorlenny Cardozo Peña at the Ethnological Museum, the workshop "Protective Beings - Nature's Superpowers" was tested. Yorlenny Cardozo Peña works as an art educator at the Instituto Colombiano de Antropología e Historia (ICANH). The workshop contains a presentation of the artistic intervention *La voz de la montaña* by Yorlenny Cardozo Peña. It is a Panorama presenting the statues of the Archaeological Park of San Agustín, made of volcanic rock, bear animal traits such as claws, fangs, or wings, but also the landscape, flora and fauna of the park. The presentation was mixed with a discussion on how the participants feel connected to animals and their specific traits.

### **Part 2**

Afterwards, participants were invited to take part in an artistic-research lab, for which they digital microscopes were provided. Yorlenny Cardozo Peña brought insects, soil samples, seeds, and a herbarium of her own creation from Park San Agustín. Participants could examine these samples with the microscopes and discover materialities and structures. The participants were also invited to draw structures they discovered in the microscope.

### **Part 3**

Yorlenny Cardozo Peña also provided cards with animals from Colombia, which explain their traits and habitats. The participants presented their favorite animal card and peer learned how diverse habitats and their creatures can be, how they shape cultural identity, and how interdependent we are. On the front of the card are pictures of animals and their names in Spanish, Ukrainian and German. On the back is information about the animal, its superpowers, and a short profile. The participants introduce the animals to each other in small groups, possibly with a guessing game to determine which superpowers are attributed to which animal, and then solve the puzzle.

### **Part 4**

Complementing the insights from San Agustín, Colombia, Daniela Pasdzierny from Campus Stadt Natur/Grün Berlin GmbH presented some examples of local animal species from the local Stadtheide Tegel, and the role the animals play in the local ecosystem. Daniela Pasdzierny consciously chose some species who also live in Ukraine. The participants discussed how the life of the presented animal species is shaped in Berlin's urban space, their contribution to the local ecosystem and in their interactions with the city's human inhabitants.

## Part 5

At the conclusion of the workshop, the participants created their own protective figures to strengthen their own "superpowers" in dealing with biodiversity. One can draw or create collages of protective figures with superpowers that one would like to have as a "spirit animal" for your everyday life and take home.

## TIMING

- Part 1: Introduction to the Biodiversity Panorama with the artist, discussion about climate and biodiversity in Colombia, including translation (approx. 30 min.)
- Part 2: Artistic research lab in the workshop room: Examination of insects, plants, and soil samples using digital microscopes, drawing structures. Including translation. (approx. 30 min.)
- Part 3: Discussion and peer learning on Colombian animals' superpowers with profile cards (approx. 30 min.)
- Part 4: Lecture on the Stadtheide Tegel (Tegel Heath landscape) and its biodiversity, with discussion and peer learning on Berlin animals' superpowers with profile cards, comparing them to Colombian and Ukrainian Animals. (approx. 30 min.)
- Part 5: Creating own protective beings (approx. 30 min.)



Artist and cultural educator Yorlenny Cardozo Peña presents her intervention "La voz de la montaña". A panorama inspired by the statues and the biodiversity in the Archaeological Park of San Agustín.

Resources	Settings	Topics
<ul style="list-style-type: none"> <li>· If necessary, a translator</li> <li>· Digital microscopes, insects samples, soil samples, seeds, a herbarium,</li> <li>· Profile cards with different animals, their characteristics, habitats and other interesting or surprising information</li> <li>· Cardboards, paper, colored pencils, felt-tip pens, scissors, glue</li> </ul>	<p>Museum exhibition, indoor workshop space</p>	<p>Personal experiences with nature, biodiversity and human-animal relations, artistic, cultural, biological, personal perspectives, local vs. international animal species, urban ecosystem and species survival, cultural meanings of human-animal coexistence, regional effects of global climate change.</p>

## REFLECTION QUESTIONS FOR THE DESIGNER/FACILITATOR

### How do you value participants' experience?

This activity integrates artistic and cultural approaches as well as scientific information on animals. That way, participants are invited to share their experiences and their personal stories why animals are important to them and why and what experience participants made with wild urban animals. The peer learning part opens up discussions between participants and well as with the facilitators and experts. Also, the facilitators motivate the participants to ask questions to topics they are like to know more about to guide the discussions towards aspects the participants are really interested in.

### How do you reinforce two-way dialogue among participants, facilitators, and experts?

The mixed approaches combining cultural, personal, artistic and scientific perspectives on animals and their habitats support bringing in own experiences, thoughts and questions. Also asking directly for the participants experiences and emotions create entry points for discussions among the participants. Hands-on materials like insects, soil and rock samples, a herbarium or the animal samples profile cards help to foster curiosity and discussions about what participants are interested. Hands-on materials also work as entry points for participants to bring in their experiences and expertise and share it with their peers. In this activity facilitators specifically asked for their relations and encounters with wild urban animals. The participants' experience is valued also by emphasizing that sharing experiences is important to learn from each other, build collective knowledge and get to know other peoples' perspectives.

## REFLECTION QUESTIONS FOR THE PARTICIPANTS

- Which animal traits do you personally relate to and why?
- What memories or feelings came up during the artistic presentation?
- How do you feel connected to nature in your everyday life?
- What information about the cultural meaning of animals in Colombia and Berlin is interesting or important to you?
- How do animals shape identity in your culture?
- Were there similarities between the species from Colombia, Berlin, and your own homeland?
- What role do animals play in urban ecosystems like Berlin?
- How do you think climate change affects biodiversity, locally and globally?
- What surprised you when exploring the samples under the microscope?
- What qualities did your protective figure represent?
- How can we use imagination and art to support biodiversity?
- What "superpower" would you like to strengthen to help protect nature?

## **FACILITATOR'S NOTES**

- If the group is only adulty the last part (creating the protective beings) should be canceled. Instead, drawing structures from plants and creating decorative patterns can be a replacement
- The mix of varied modules worked well: input/ educational formats, creative parts, opportunity to explore hands-on
- Difficulties: the groups interests can vary, it is also possible to offer different opportunities at the same time, so participants can explore what is most interesting to them a longer period of time or to move on to the next part faster

## **Appendix**

### **When this activity is suitable**

- Ideal in contexts that link ecology with cultural heritage, such as museum education, intercultural learning, or global citizenship programs
- Working with diverse, international groups: Especially effective when participants come from different cultural backgrounds and can compare experiences (e.g., migrants, exchange students, intercultural youth groups)
- When there is a need to build confidence through creative, hands-on learning
- When participants benefit from non-verbal, sensory methods like drawing and using microscopes
- When addressing cultural identity and diversity helps build trust and relevance
- When the group includes people with refugee or migration backgrounds who can relate to cultural perspectives on animals and nature, finding connection and belonging through them.

### **When this activity is less suitable**

- When participants have very limited attention span or high stress levels that make engagement in detailed activities difficult
- When participants lack basic language skills and no interpretation or multilingual support is available, making communication too challenging
- When the setting is very large or if one plans for a big group limiting space for personal sharing and hands-on activities
- When the participants have physical or sensory impairments that cannot be accommodated for microscope or drawing activities
- When the workshop's focus on animals doesn't resonate with the group's interests

### **Additional resources**

- See "Annex 6: Animal profile cards" for an impression of the animal profile cards

## 15. Exploring the Stadtheide – Nature and connection

Designed and tested by: Ethnological Museum and Grün Berlin, Berlin, Germany

### In brief

Duration	120 min
Number of participants	5-25
Number of facilitators	1-3 (translator and insect expert optional)
Special materials	<ul style="list-style-type: none"><li>• White postcards and glue to create “meadow postcards” by imprinting plants and sand</li><li>• Digital microscopes and tablets</li><li>• Sun screen for the tour, since the sun can be very hot on an open space</li></ul>
Objectives	<ul style="list-style-type: none"><li>• Provide knowledge about the impacts of human activities on the environment and climate in an urban context.</li><li>• Promote conscious and mindful interaction with the natural environment through sensory perception (hearing, seeing, feeling)</li><li>• Strengthen the connection between people and their local environment to foster a sense of responsibility for nature conservation.</li><li>• Raise awareness of the importance of urban green spaces as vital ecological and climate resources.</li><li>• Learning about others perspectives on wild herbs and flowers</li><li>• Training detailed observation of wild herbs and flowers</li><li>• Learning about historical and cultural approaches on wild herbs and flowers</li><li>• Explore the role of mythology and storytelling in shaping environmental awareness.</li><li>• Fostering creativity</li><li>• Inspire sustainable behavior through direct experience and reflection on one's relationship with nature.</li></ul>
Tested with	13 Ukrainian refugees, 12 women and 1 man

### OVERVIEW

Participants were welcomed with a light-hearted introduction involving their favourite urban animals and plants. The group then explored the Tegeler Stadtheide (Tegel City Heath) through a guided, interactive tour, including field microscopy and creative plant research. In the workshop phase, participants presented their plant findings and shared personal experiences related to nature and plants. An ethnological input provided deeper insights into the cultural and historical meanings of certain plants. The session concluded with a mental mapping activity and a feedback round in a closing circle.

## Context

The Ethnologisches Museum conducted this activity in cooperation with Daniela Paszierny, an environmental educator working for Grün Berlin gGmbH. Grün Berlin manages most of Berlin's Parks and green spaces which also includes a diverse and site specific environment education program. Through this activity, Grün Berlin and the museum aimed to bring together Ukrainian refugees who have been living in Berlin for some time and those who have recently arrived and are living in a welcome centre on the former Tegel Airport site, next to the Tegeler Stadtheide.

The activity was carried out on an accessible outdoor space, characterized by wild meadows and plants. Ideally, the green space would be home to various insects and birds.

Unfortunately, by the time our tests were conducted, most migratory birds had already left the area heading south, and as a result, there was hardly any birdsong to be heard.

The second part of the activity was carried out in a summer pavilion on the Tegeler Stadtheide, equipped with tables, chairs, light and electricity. The pavilion also provided shade and cool shelter from the hot temperatures.

### SUGGESTED SCENARIOS

- Setting: an accessible public green space like a park with wild herbs and plants, for the sound mapping there have to be birds as well.
- Ideally the green area is situated near residential areas from communities of the target group, fostering inclusivity and connecting people to nature in their own neighborhood. It is a spring, summer or early fall activity (because of the plants and insects). Since it is an outdoor activity, good weather is also important.
- A workshop room very nearby is helpful, but the workshop can also be conducted in the outdoors, depending on the weather. Ideally, there is a well-lit, ventilated room equipped with tables and chairs. Both spaces should be easily accessible and located close to one another to ensure a smooth transition between the tour and the workshop.

## Description

### **Part 1: Interactive guided dialogical tour of the grounds of Tegeler Stadtheide (natural heath and meadow area located in Berlin-Tegel):**

The session began with a warm welcome, during which participants received name tags and introduced themselves by sharing their favorite urban animals and plants. It was followed by an interactive, dialogue-based tour through the Tegeler Stadtheide, a natural heath and meadow area in Berlin-Tegel. While a sound-mapping activity had been planned at the fire beacon, it was replaced with field microscopy due to the absence of migratory birds and ambient sounds. Using digital microscopes and tablets, participants explored the local flora, drawing and naming the most interesting plants they found.

This part can be conducted as an individual exercise or as teamwork as well ("Team plant", see attachment).

### **Part 2: Workshop and discussion in a workshop space**

The second part of the session was held in a nearby workshop space. Everyone presented their plant drawings and the names they invented for them. The group also shared personal stories, knowledge, and cultural associations related to plants. An ethnological input deepened the discussion by offering insights into the historical and cultural significance of selected plant species. Optional activities such as creating meadow postcards or searching for insects complemented the experience. Finally, the group came together for a collective "mental mapping" exercise, where they shared memories of meaningful natural places, and concluded the day with a short reflection and feedback round.

## TIMING

- Welcome: Arrival and distribution of name tags, introduction with favorite animal (10 minutes)
- Part 1: Interactive guided dialogical tour of the grounds of Tegeler Stadtheide (natural heath and meadow area located in Berlin-Tegel) (Approx. 50 minutes)
- Part 2: Workshop and Discussion in a workshop space (approx. 50 min.)
- Closing circle and sharing feedback (appr. 10 min.)



Guided tour on the biodiversity and wild plants and animals of Stadtheide Tegel, the former Airport Berlin Tegel.

## REFLECTION QUESTIONS FOR THE PARTICIPANTS

- What surprised you most about the plants or landscape today?
- Did you notice something you normally wouldn't pay attention to in nature?
- How did using the microscopes change your view of plants?
- What inspired the name you gave to your plant?
- How did it feel to create something from natural materials?
- What does your "meadow postcard" say about your view of nature?
- Did you learn something new about how plants are used in different cultures?
- How can these types of activities help raise awareness about biodiversity?
- What role do urban green spaces play in your life?
- Did you connect with someone today in a new or unexpected way?
- How did working in a group influence your experience?
- Which natural place (from today or your past) holds special meaning for you, and why?

Materials	Settings	Topics
<ul style="list-style-type: none"> <li>· Paper, clipboards, (colored) pencils, felt-tip pens or similar</li> <li>· White postcards and glue to create "meadow postcards" by imprinting plants and sand</li> <li>· Digital microscopes and tablets</li> <li>· A separate workshop space with tables, chairs</li> <li>· Water and fresh fruits and sunscreen for the participants</li> <li>· Sun screen for the tour, since the sun can be very hot on an open space</li> </ul>	<p>No specific setting is required for this activity</p>	<p>Urban nature and biodiversity, wild herbs and flowers worth for the urban ecosystem, use of digital microscopes and technology, cultural and ethnological significance of plants, sharing personal experiences and traditional cultural knowledge of plants, teamwork and social interaction, creative expression, environmental soundscapes, personal connections to natural places.</p>

## REFLECTION QUESTIONS FOR THE DESIGNER/FACILITATOR

### How do you value participants' experience?

The activity consists of different part: a dialogical tour, in which participants are encouraged to ask questions and lead the discussion to aspects they are most interested in. On the other hand, there is also time for participants to explore plants (and sounds) themselves and share their creative research, findings and drawings not only with the group but also with facilitators and experts. The fact that the activity combines perspectives from the natural sciences as well as from ethnological information and creative approaches makes it easier for participants to share their experiences and knowledge.

### How do you reinforce two-way dialogue among participants, facilitators, and experts?

As facilitators, we value participants' experiences by centring their voices, honouring their knowledge and emotions, and creating a space where everyone feels empowered to contribute and connect. Our role is not to only to guide the activity, but also to listen, support, and co-create with the group.

We centred participant-led discovery: When participants used digital microscopes to explore and then drew and named the plants they found, we valued their curiosity and creativity.

By letting them invent names and share their drawings, we affirmed that their observations and interpretations are valid and valuable, not just the "correct" scientific names. Also by inviting participants to share personal stories, knowledge, and cultural associations related to plants, we showed that their lived experiences and cultural backgrounds enrich the collective understanding of nature. This approach values diversity and deepens the group's connection to the environment. Offering both individual and team-based options ("Team plant") and complementary activities allowed participants to engage in ways that suited their preferences. This flexibility values their autonomy and different ways of learning. By facilitating a collective a reflection round, we created space for participants to share meaningful memories and personal reflections. This shows that their emotional and cognitive engagement are valued, not just their physical participation.

## FACILITATOR'S NOTES

- With this activity we were able to engage Ukrainian refugees living in a welcome center nearby. However, the green space is generally located on the outskirts of Berlin, which means it is not easily accessible for many people. This may have contributed to the relatively low number of visitors from the other Ukrainian people living in other areas of the city.
- Stable weather or weather forecasts can also influence how many people actually attend the activity. On the day of the event, the weather very sunny. If a large part of the activity has to be conducted inside, the setting has to be prepared with different examples of dried wild plants and herbs which can be explored in the workshop room as well.

- We had electrical cars for the tour since the area is quiet spacious. Beforehand, it has to be clarified how mobile the participants are and to what extent they are able to walk around and explore plants by themselves.

## Appendix

### When this activity is suitable

- Suitable for small to medium-sized groups that benefit from personal exchange and shared reflection
- Ideal for mixed-age youth or adult groups with interest in nature, creativity, and cultural perspectives
- Great for settings that allow outdoor exploration and provide space for hands-on, creative activities
- Works well when there's enough time for immersion, dialogue, and personal engagement

### When this activity is less suitable

- Not suitable for people with physical disabilities limiting fine motor skills
- Not suitable for very young children
- Not suitable for participants with severe allergies to certain wild plants or herbs
- Not suitable for groups with very limited time, as the workshop requires focused, hands-on engagement
- Not suitable for very large groups: the activity is also about sharing perspectives and perceptions. If the group gets too large, the atmosphere becomes more anonymous which can affect the openness to share personal insights
- Not suitable for settings without adequate space or materials for creative work

### Additional resources

- annex 8 description of "team plant"
- annex 9 "Tierarten\_Superkräfte"



Participants drawing plants at Stadtheide Tegel.

## 16. Exploring nature at Kienbergpark

Designed and tested by: Ethnological Museum and Grün Berlin, Berlin, Germany

### In brief

Duration	120 min
Number of participants	5-20
Number of facilitators	1-3 (translator optional, 1 plant and insect expert from the educational garden, 1 facilitator for the acoustic mapping (could also be the same person))
Special materials	• Bee-eye lenses
Objectives	<ul style="list-style-type: none"><li>• Promote conscious and mindful interaction with the natural environment through sensory perception (hearing, seeing, feeling).</li><li>• Strengthen the connection between people and their local environment to foster a sense of responsibility for nature conservation.</li><li>• Raise awareness of the importance of urban green spaces as vital ecological and climate resources.</li><li>• Encourage social participation and inclusion by conducting the activity in a less privileged urban area.</li><li>• Provide knowledge about the impacts of human activities on the environment and climate in an urban context.</li><li>• Inspire sustainable behavior through direct experience and reflection on one's relationship with nature.</li></ul>
Tested with	5 women and 5 children

### OVERVIEW

This activity took place in collaboration with Grün Berlin in Kienbergpark, a park on the outskirts of Berlin serving a socioeconomically diverse community. It began with a web-building icebreaker, which invited participants to introduce themselves by sharing their associations with nature. They then explored the park's educational garden using bee-eye lenses to experience plants from an insect's perspective, sharing cultural connections to flora. The session concluded with acoustic mapping, where participants created sound maps of the park's natural and urban soundscape, deepening their awareness of ecological and human-made environments. The activity fostered inclusion, cultural exchange, and sensory engagement with urban nature.

### Context

This activity was conducted by the Ethnologisches Museum in cooperation with Katja Czerwinski, an environmental educator working for Grün Berlin gGmbH. Grün Berlin manages most of Berlin's parks and green spaces, as well as a diverse, site-specific environmental education programme. Through this activity, Grün Berlin and the museum aimed to adapt their programme to cater specifically for Ukrainian refugees and migrants living on the outskirts of eastern Berlin. As the museum is located in the tourist centre of the city, it was important to conduct activities in neighbourhoods with lower socioeconomic standards. The activity was carried out on an accessible outdoor space, characterized by wild meadows and plants. A teaching garden

is also part of the park and was used to introduce various wild and cultural plants as well as for exploring insects.

## **SUGGESTED SCENARIOS**

The green space should be ideally home to various insects and birds. For this activity, it was also important that the green space consisted of varied vegetation, such as meadows, forest, a river, and a lake. This was important to be able to discover and identify different noises and sounds in the environment during the exercise "acoustic mapping". It is an activity for spring until early fall, since this activity is conducted outside and focuses on plants, insects and a varied vegetation. Stable weather is very helpful, but it is also important to have an alternative program in case of rain.

## **Description**

### **Part 1**

Welcome and group introduction with an icebreaker: The group stands in a circle. One person begins by introducing themselves with an association related to nature while holding a string. Then they choose another person in the circle and pass the string to them, who then introduces themselves. This process continues until everyone has introduced themselves, creating a web in the center of the circle through the passing of the string.

### **Part 2**

The Kienbergpark includes an educational garden with various plant species. In the first part of the workshop, participants toured the garden and used bee-eye lenses (optical devices that mimic the compound eyes of insects) to explore the plants from an insect's perspective. The group discussed which plants were familiar from their home countries and talked about the value these plants hold for different insect species.

### **Part 3**

Acoustic Mapping: the participants explored the Kienberg Park while actively listen to the sounds of a specific environment to draw a "sound map" with the sources they perceived. This map highlights the different natural and human-made sounds present in the area, such as bird calls, water flows from a stream nearby, wind, or urban noises.

The process encourages heightened auditory awareness, helping participants connect more deeply with their surroundings, understand the ecological characteristics of a place, and reflect on how soundscapes influence environmental health and human well-being.

### **Part 4**

At the end, the participants presented their personal sound maps and exchanged their perceptions in a reflection round.

## **TIMING**

- Part 1: Welcome and Ice Breaker (approx. 15 min.)
- Part 2: Exploring the educational garden (approx. 45 min.)
- Part 3: Acoustic Mapping (approx. 45 min.)
- Part4: Reflection round (approx. 15 min.)



One of the bee-eye lenses that allowed participants to explore plants from an insect's perspective

## REFLECTION QUESTIONS FOR THE PARTICIPANTS

- What new sounds or sensations did you notice in the park that you hadn't before?
- How did focusing on your senses change your perception of the environment around you?
- In what ways do you think urban green spaces like this park contribute to climate resilience?
- How connected do you feel to this local environment after the activity?
- What actions could you take in your daily life to support the health of urban ecosystems?
- What actions to do expect from the administration and the society which are not your personal responsibility?
- How does this experience influence your understanding of environmental justice in cities?
- Were there any moments that challenged your previous ideas about nature or the city?

Materials	Settings	Topics
<ul style="list-style-type: none"> <li>• A translator if necessary</li> <li>• Bbee-eye lenses</li> <li>• Paper, clipboards, colored pencils, felt-tip pens or similar</li> </ul>	<p>A public outdoor space with an educational garden as well as trees and a stream as natural urban resource, a meadow and open air workshop space.</p>	<p>Sensory awareness and experiencing natural environments, Human-nature relationships and fostering environmental stewardship, the ecological role and importance of urban green spaces, sustainable resource use and conservation in city landscapes, personal and collective responsibilities toward climate action.</p>

## REFLECTION QUESTIONS FOR THE DESIGNER/FACILITATOR

### **How do you value participants' experience?**

This activity fosters two-way dialogue by incorporating interactive and physical activities, such as paired silent sharing on yoga mats and collective mental mapping, which require active participation from everyone. The performative walk and mindfulness exercises create a shared sensory experience, levelling the playing field between experts, facilitators and participants. Group discussions, such as those with Flussbad Berlin, are structured as open exchanges in addition to a rather short informative lecture, ensuring that participants' questions and ideas directly influence the direction of the conversation. Facilitators act as intermediaries, synthesising contributions into the final map, which visually reflects the collaborative creation of knowledge.

### **How do you reinforce two-way dialogue among participants, facilitators, and experts?**

From the outset, participants' experiences are centred through personal storytelling (e.g. the icebreaker on water memories) and embodied reflection during the walk, which validates their unique perspectives. The silent pairing exercise at the Flussbad site prioritises deep listening, ensuring that every voice is heard equally. By linking individual emotions and memories to the collective mental map, the activity transforms personal narratives into shared resources for envisioning the future of the Spree. This approach positions participants as active agents, rather than observers, in shaping urban and ecological narratives.

## FACILITATOR'S NOTES

- Since the Kienbergpark is located on the outskirts of Berlin, it was rather a long ride for people living not directly in that area.
- The weather forecast on the day we conducted the activity was rather unstable. This and the location on the outskirts of Berlin could have led to the rather small group of participants.
- It would have been helpful to promote this activity more actively in the local neighbourhood beforehand, rather than targeting different Ukrainian communities living in different districts.
- For the case of rain we prepared a domino game featuring various parks, city squares, plants, and wildlife in Berlin as a basis for discussion. This means that Berlin's biodiversity can also be presented in a workshop room if necessary. It is also important to incorporate the personal experiences and knowledge of the participants by asking specific questions.

## Appendix

### **When this activity is suitable**

- Ideal for marginalized or peripheral communities in cities, connecting diverse groups to local green spaces and fostering environmental awareness.
- Especially suitable for migrants, refugees, or multicultural audiences, as activities incorporate personal/cultural plant knowledge and sensory exploration.
- Playful, hands-on methods (e.g., bee-eye lenses, sound mapping) engage children (10+), teens, and families with no prior expertise needed. Thus, this activity is especially suitable to cater topics to parents and their children alike.

### **When this activity is less suitable**

- Not suitable for very large groups: the activity is also about sharing perspectives and perceptions. If the group gets too large, the atmosphere becomes more anonymous which can affect the openness to share personal insights
- Not suitable for participants who are physically impaired or have limited mobility.

## 17. Performative mapping – A walk at the river Spree

Designed and tested by: Walmeri Ribeiro, NGO Flussbad Berlin e.V., Ethnological Museum, Berlin, Germany

### In brief

Duration	150 min
Number of participants	6–16
Number of facilitators	1–3 (translator optional, 1 plant and insect expert from the educational garden, 1 facilitator for the acoustic mapping (could also be the same person))
Special materials	
Objectives	<ul style="list-style-type: none"><li>• Raise awareness of the urban river space as a social, ecological, and cultural environment</li><li>• Strengthen the connection between body, memory, and landscape through performative and mindful methods</li><li>• Encourage reflection on resource use and justice in the context of the city</li><li>• Collectively explore future perspectives for sustainable and community-oriented water use</li><li>• Exploring new ways of engaging with the environment through movement, sensory awareness, and creative practices</li></ul>
Tested with	6 Ukrainian and Bosnian refugee women

### OVERVIEW

This guided performative tour and mental mapping of the Spree Island explored the river as a social and ecological space. It was conducted in cooperation with Brazilian curator Walmeri Ribeiro and the NGO Flussbad Berlin e.V. Participants engaged through mindful walking, sensory awareness, and storytelling to connect body, memory, and environment. At the Flussbad site, they shared personal water-related experiences. A final mapping session visualized past, present, and future relationships with water, highlighting visions for sustainable urban living. Flussbad Berlin also introduced historic, contemporary and future concepts of a swimmable city as part of the debate on who has access to urban resources.

### Context

The Ethnological Museum's exhibition site is located on the Humboldt Forum on Spreeinsel (A small museum island in the middle of the Spreae River) in the tourist centre of Berlin. The Humboldt Forum in Berlin has been a subject of public debate, especially regarding its accessibility and inclusivity for citizens. Critics argue that its programming and exhibitions often cater to touristic, elite or academic audiences, making it less approachable for the general public. Supporters highlight efforts like educational programs, but discussions continue about how well it truly serves as a "citizens' forum" and represents diverse voices in German society. To break out of the building which is partly perceived as hierarchy and dominant. To break up

the Humboldt Forum building's perceived dominance and hierarchical aesthetics, the museum decided to take some of its themes and educational activities outside the exhibition, including this activity. This was also done to introduce participants to subjects at the intersection of the direct urban environment of the building and the museum's environmental ethnological topics. This guided performative tour of Spree Island and mental mapping was conducted in cooperation with Walmeri Ribeiro, a Brazilian curator who investigates the relationships between art and science, particularly with regard to issues concerning the Anthropocene and resource justice. It was also conducted in cooperation with the association "Flussbad e.V.", which is located close the Humboldt Forum. The association advocates for a swimmable, and thus the cleanliness and sustainable management of the inner-city Spree River as a natural resource. The activity was tested in an outdoor space with a river as natural urban resource, a meadow and an open air workshop space.

## **SUGGESTED SCENARIOS**

This activity is ideally situated in a city but in walking distance of a calm, natural environment near a river or another public resource of nature (e.g. green space or lake). Access to not too crowded outdoor spaces for walking and reflection is needed as well. The setting should encourage mindfulness and sensory engagement, allowing participants to move slowly and attentively through the (urban) landscape. Spaces for small group interaction, such as grassy areas or spots with yoga mats, are needed for sharing and creative expression. The atmosphere should be relaxed and supportive to foster openness and connection between participants, their bodies, and the environment. Tables and chairs are recommended for the mental mapping part, but it can also be done sitting on the grass in a green space.

## **Description**

Performative mapping is an artistic and research-based method where maps are not understood as static representations of space, but as open, process-oriented, and bodily experienced ways to engage with space, memory, relationships, and movement. Unlike traditional maps that depict geographic facts, performative mapping focuses on understanding space as lived, social, and often subjective.

### **Part 1**

The activity started outside the museum with a short ice breaker and self-introduction on personal experiences with water.

### **Part 2**

The performative walk along the Spree River was guided by Walmeri Ribeiro and began with a mindfulness exercise focusing on breath and sensory awareness of the environment. Participants paused at three spots to quietly observe the water, and creatively express their connection to the river and body. At the third stop, located at the Flussbad Berlin site, participants paired up on yoga mats to silently share their perceptions, memories, and thoughts - one lying down receiving, the other speaking - before switching roles. This practice deepened their connection to both body and place, fostering awareness of more-than-human presences.

### **Part 3**

Franziska Bittner, an employee at Flussbad Berlin, introduced the citizen-led initiative to revive the Spree Canal as a clean, accessible, and multifunctional urban space. The project emphasizes sustainability, social inclusion, and participatory urban development. Participants discussed their needs, wishes, and attitudes toward resource use and resource justice regarding the Spree in the city.

## Part 4

The last part was a mental mapping session: participants collectively mapped water-related places from past, present, and future, linking them to emotions and uses. The shared map was presented, fostering new perspectives for the sustainable and communal use of water within the urban society.

### TIMING

- Part 1: Welcome and self-introduction (approx. 15 min.)
- Part 2: Performative Walk (approx. 60 min.)
- Part 3: Discussion about the river Spree (approx. 30 min.)
- Part 4: Mental Mapping (approx. 45 min.)

### REFLECTION QUESTIONS FOR THE PARTICIPANTS

- How can we re-sense our bodies?
- How can we create ways of living (not just surviving), of imagining and dreaming, while living amidst various crises?
- How can we create a bodily engagement with the environment?
- How can this practice connect us with our places, countries, and memories, creating a bond with where we are living now?
- How does the health of the Spree River affect the well-being of both human and non-human communities in the city?
- What possibilities do we have as urban residents to ensure fair and sustainable access to natural resources like the river? What responsibilities can or should we demand from the city administration?
- In what ways can revitalizing the Spree River contribute to climate resilience and social inclusion within Berlin's urban environment?

Materials	Settings	Topics
<ul style="list-style-type: none"><li>• A translator if necessary</li><li>• Setting: a public space with a natural resource like a river. The activity can also be linked to any other natural resource, e.g. green spaces, a small forest or a lake</li><li>• Yoga mats</li><li>• Tables, chairs and/or benches, a big paper roll, Colored pencils, felt-tip pens or similar</li></ul>	<p>No specific setting is required for this activity.</p>	<p>Environmental justice and resource use, embodied and sensory experience of the environment, importance and fragility of urban ecosystems in the context of climate change, creative expression as a way to connect with other people and the environment.</p>



Mental mapping on memories and ideas on living with water bodies.

## REFLECTION QUESTIONS FOR THE DESIGNER/FACILITATOR

### How do you value participants' experience?

Participants' experiences were valued as the central source of meaning-making throughout the performative mapping process. Rather than transmitting predefined knowledge, facilitators invited participants to explore their own embodied relationship with water and the city. Personal memories, sensory impressions, and emotional responses guided the activity — from the first introductions to the final mental mapping.

Each contribution, whether verbal or silent, was treated as a valid form of expression. The alternation between movement, observation, and shared reflection allowed participants to connect personal stories to broader environmental and social contexts. The walk thus became a collective exploration of belonging and awareness, where participants' lived experiences shaped the understanding of place and ecology.

#### Facilitator's learnings

- Value silence and bodily gestures as meaningful expressions.
- Create opportunities for participants to connect personal memories with shared ecological concerns.
- Encourage reflection on both individual and collective dimensions of environmental experience.

### How do you reinforce two-way dialogue among participants, facilitators, and experts?

Dialogue was fostered through alternating moments of listening, movement, and discussion. During the performative walk, the facilitators and participants engaged in non-verbal dialogue through shared sensory experience and mirroring gestures, creating a horizontal exchange rather than a hierarchical teaching moment.

The presence of the Flussbad Berlin representative transformed the second half of the activity into a civic conversation: participants' observations from the walk informed their questions about water access, urban ecology, and social justice. The expert responded not as a lecturer but as part of the dialogue, linking participants' reflections to real urban sustainability challenges. This flow between embodied exploration and verbal discussion helped bridge artistic practice and environmental action.

#### Facilitator's learnings

- Combine embodied and discursive dialogue to deepen engagement.
- Invite experts to join as co-learners, building on participants' lived observations.
- Use shared sensory experiences as a foundation for civic discussion.

## **FACILITATOR'S NOTES**

- It makes it a lot easier for the process if all participants can speak at least a simple level of the same language and understand each other directly. If it needs translators it can lead to lose momentum of sharing and discussing things directly with each other or the persons sitting near each other
- This activity is not for everyone: the participants have to know exactly what the activity is about beforehand
- The activity has to be adopted to suit the needs of people with physical impairments or limited mobility (due to walking, standing, lying down)
- We began the activity right after the self-introduction round in front of the busy entrance to the Humboldt Forum, where many visitors passed by. However, the activity begins with an introspective focus on one's own sensations in the present moment and on what aspects of the environment one is currently perceiving: wind on the skin, sounds, etc. It is therefore advisable to begin the actual activity in a quieter, more sheltered, and less frequented location.

## **Appendix**

### **When this activity is suitable**

- Individuals interested in mindfulness, body awareness, and connecting with the environment, who are open to exploring inner experiences.
- Adults and young adults who want to reflect on their personal relationship with urban nature and water.
- Participants open to intercultural exchange and communal learning, as the method encourages sharing personal stories and perspectives.
- Groups open to sharing personal experiences and engaging in participatory, creative methods
- Participants from underserved communities who not feel at ease with public institutions yet: the outdoor, public setting lowers entry barriers to cultural spaces
- Intercultural or interdisciplinary groups exploring urban space, sustainability, or collective memory

### **When this activity is less suitable**

- This activity is not appropriate in outdoor settings where there is a lot of noise or where there is no safe, comfortable space for closing your eyes, walking very slowly, stopping and resting.
- This activity may not be suitable for participants with a history of trauma or who are (currently) emotionally vulnerable, as its focus on bodily sensations and personal perception could potentially trigger traumatic memories or emotional distress. Research in trauma-informed practices emphasises the importance of careful guidance and support when engaging in activities that heighten somatic awareness, in order to ensure the safety and well-being of participants.
- Not suitable for very large groups: the intimate, reflective format requires manageable group sizes

### **Additional Resources**

Instructions of the performative walk are to be found in the Annex 7:  
"Instructions of the performative mapping"

## 18. From aztec Chinampas to urban hydroponics

Designed and tested by: Anja Steglich, Technische Universität Berlin, "Roof Water-Farm" (RWF)  
Ethnological Museum, Berlin, Germany

### In brief

Duration	120 min
Number of participants	5-20
Number of facilitators	1-3 (translator optional, 1 Facilitators or educators with expertise in sustainable agriculture, environmental education, or urban farming, 1 guide for the specific hydroponic site)
Special materials	<ul style="list-style-type: none"><li>• Posters, diagrams, models of chinampas and hydroponic systems</li><li>• Access to the hydroponic system or similar setup for demonstration purposes</li><li>• If possible: Hands-on component, like planting seeds or assembling a mini hydroponic unit</li></ul>
Objectives	<ul style="list-style-type: none"><li>• Understand the principles of sustainable and resilient agriculture through historical and modern examples.</li><li>• Recognize the importance of circular economy and biodiversity for climate protection and food security.</li><li>• Learn how traditional farming techniques, like Aztec chinampas, contribute to sustainable land use and resource conservation.</li><li>• Explore innovative urban farming methods, such as hydroponics, and their potential to recycle water and reduce environmental impact.</li><li>• Develop awareness of the connections between water cycles, agriculture, and urban infrastructure for building climate-resilient communities.</li><li>• Encourage practical thinking about applying sustainable practices in everyday life and local environments.</li></ul>
Tested with	Ukrainian refugees, 16 adults and 3 children

### OVERVIEW

This event explores sustainable agriculture through historical and modern examples. It begins with a short input lecture on Aztec chinampas: ingenious floating gardens that demonstrate principles of circular farming, biodiversity, and climate resilience. It is followed by a guided tour of the Roof Water-Farm in Berlin, a real-world laboratory in the yard of an apartment building, where participants learn how urban hydroponic systems can recycle greywater for food production. The event highlights the connections between historic and traditional indigenous practices, and modern, innovative urban solutions for sustainable agriculture.

## Context

This activity was conducted in collaboration with Anja Steglich, a landscape architect and transformation researcher at Technische Universität Berlin. She also co-initiated the real-world laboratory "Roof Water-Farm" (RWF), located in the inner courtyard of a residential block in Berlin-Kreuzberg. The educational activity connects the Aztecs' chinampas, a historic model of sustainable agriculture, with modern urban farming, demonstrating how low-tech historic and Indigenous knowledge can inspire modern climate-resilient solutions.

The RWF combines greywater treatment and hydroponic food production in a closed-loop system, serving as a model of blue-green infrastructure for sustainable urban development. By integrating rainwater management, CO<sub>2</sub> storage, and plant-based evaporation, it actively contributes to climate protection. The guided tour allows participants to explore these systems firsthand, bridging historical wisdom with practical urban applications.

Key themes include circular water use, climate adaptation, and the synergy between ancient and modern farming techniques, all demonstrated in a real-world setting within an innovative 1987 IBA (International Built housing project).

### SUGGESTED SCENARIOS

The event is best held in a combination of indoor and outdoor spaces, allowing for both theoretical input and practical demonstration. The indoor space should be accessible, quiet, and equipped with basic presentation tools (e.g. projector, seating, flipcharts). Ideally, it includes a workshop room for the initial presentation and group discussion on chinampas and sustainable agriculture. More important is access to an urban hydroponic farm, a rooftop garden, or demonstration site where participants can experience hydroponic systems in action. However, the indoor workshop room is not essential, as the presentation can also be held outdoors using physical visual materials, as successfully done in this tested activity. Optionally are also green areas, community gardens or a demonstration site where small hands-on activities can take place.

## Description

### Part 1: Historical Introduction and Brief Discussion about the Aztec Chinampas

The event begins with a historical introduction to the Aztecs, their former capital, Tenochtitlán (later rebuilt as Mexico City), and their chinampas – artificially constructed, highly productive islands located in Lake Texcoco. These islands were built using wooden frames, reeds, mud, and plant remains, creating a stable, fertile environment with permanent moisture.

Thanks to natural fertilization from the aquatic biodiversity present, chinampas could yield up to seven harvests annually. This section explores how chinampas serve as an exemplary model for resilient and resource-efficient agriculture. The first part also covers discussions on the principles of the circular economy, the importance of microbial soil life and how these are relevant to today's challenges concerning food security, biodiversity conservation and climate protection.

### Part 2: Guided Tour of the Roof Water-Farm with Anja Steglich (Technische Universität Berlin)

The second part featured a guided tour of the Roof Water-Farm, led by Anja Steglich from TU Berlin. Anja Steglich walked the group through the greenhouse and retention basin of the Roof Water-Farm, providing commentary along the way. Participants observed a residential-scale hydroponic system in action which cleans greywater from households and repurposes it for plant growth. This innovative setup connects water cycles, urban agriculture and technical infrastructure in a sustainable way.

During the tour, discussions were held about the food safety of this circular system,

and the group reflected on how traditional agricultural principles, such as those used in chinampas, could be adapted for other modern urban contexts.

### TIMING

- Welcome: Arrival and welcome, short introduction round and overview (10 minutes)
- Part 1: Historical Introduction and Brief Discussion about the Aztec Chinampas (approx. 20 minutes)
- Part 2: Guided tour through the greenhouse and the wetlands of the roof water farm and discussion (approx. 50 min.)
- Closing circle and farewell (approx. 5 min.)



Anja Steglich shows how chives are grown in a vertical part of the residential-scale hydroponic system on the Roof Water-Farm.

### REFLECTION QUESTIONS FOR THE PARTICIPANTS

- What did you find most interesting about the Aztec chinampas and their farming methods?
- How can traditional farming techniques help us protect the environment today?
- In what ways do you think urban farming can improve our communities?
- How does recycling water in farming benefit the environment and us?
- What changes could you make in your daily life to support sustainable agriculture?
- How do you see the connection between the food we eat and climate change?
- What challenges might you face when trying to use these ideas at home or in your neighborhood?

Materials	Settings	Topics
<ul style="list-style-type: none"> <li>· Physical presentation materials explaining chinampas and circular agriculture on site</li> <li>· Visual learning tools (e.g. posters, diagrams, models of chinampas and hydroponic systems)</li> <li>· Printed handouts or visual aids in plain language for low-literacy participants</li> <li>· Access to the hydroponic system or similar setup for demonstration purposes</li> <li>· Weather-appropriate clothing or protection if parts of the event are outdoors</li> <li>· If possible: Hands-on component, like planting seeds or assembling a mini hydroponic unit</li> <li>· Snacks from the hydroponic farm like tomatoes or herbs</li> <li>· Follow-up materials or simple guides for participants to take home</li> </ul>	<p>No specific setting is required for this activity</p>	<p>Basics of sustainable farming and natural resource use, how traditional agriculture supports climate resilience, importance of biodiversity for healthy ecosystems, water saving and recycling methods in urban farming, practical examples of growing food sustainably in cities, understanding the link between food, environment, and climate, inspiration on how to apply sustainable practices in everyday life.</p>

## REFLECTION QUESTIONS FOR THE DESIGNER/FACILITATOR

### How do you value participants' experience?

This activity fosters two-way dialogue by grounding discussions in tangible, historical, and contemporary examples, such as the Aztec chinampas and the Roof Water-Farm, that invite participants to connect past and present practices. The historical introduction encourages questions and reflections by linking ancient agricultural principles to modern challenges like food security and climate protection. During the guided tour, the facilitator, Anja Steglich, engages participants in observation-based discussions about water cycles, food safety, and urban agriculture, creating space for both expert insights and participant perspectives. By comparing traditional and modern systems, the activity bridges knowledge gaps and ensures that participants, facilitators, and experts co-create meaning through shared exploration.

### How do you reinforce two-way dialogue among participants, facilitators, and experts?

Participants' experiences are centered by starting with a relatable historical narrative, the chinampas, that highlights human ingenuity and invites personal connections to sustainability. The interactive tour of the Roof Water-Farm further validates their perspectives by encouraging hands-on observation and discussion, ensuring their questions and reflections shape the conversation. By linking traditional knowledge to modern innovations, the activity positions participants as active contributors to solving contemporary challenges, rather than passive recipients of information. Their insights are integrated into the dialogue, reinforcing the relevance of their lived experiences and ideas for sustainable urban practices.

## Appendix

### When this activity is suitable

- Suitable for not too big, depending on the specific site and possibilities to move around and interact there
- Rather suitable for adult groups but also interesting for slightly older children
- Works well when there's enough time for immersion, dialogue, and personal engagement

### When this activity is less suitable

- Not suitable for people with physical disabilities limiting fine motor skills
- Alternatively: Support staff or assistants to help with group guidance, especially for participants with special needs
- Not interesting for very young children since there is limited possibilities for hands-on activities
- Not suitable for participants with severe allergies to certain plants or herbs
- Not suitable for groups with very limited time, as the workshop requires focused engagement

### Additional Resources

Visit the [Roof Water-Farm website](#) to learn more about how it operates as a real-world laboratory within the inner courtyard of a residential block.

## 19. Reclaiming the ocean: Māori cosmology, art and upcycling

Designed and tested by: Ethnological Museum, Berlin, Germany

### In brief

Duration	120 min
Number of participants	5-20
Number of facilitators	1-3 (translator optional, 1 Facilitators or educators with expertise in sustainable agriculture, environmental education, or urban farming, 1 guide for the specific hydroponic site (possibly the same person))
Special materials	<ul style="list-style-type: none"><li>• Clean, empty plastic bottles</li><li>• Optional: Additional plastic waste materials</li><li>• Scissors, cutters</li><li>• String, wire, tape, and other fastening materials</li><li>• Optional: Hot glue guns or strong craft glue</li><li>• Optional: Decorative materials: colored foil, markers, paint, tissue paper, etc.</li></ul>
Objectives	<ul style="list-style-type: none"><li>• Learn about Indigenous perspectives on nature, the ocean, and the environment through the work of Māori artist George Nuku.</li><li>• Understand how art can address urgent global issues such as plastic pollution and climate change.</li><li>• Explore the role of mythology and storytelling in shaping environmental awareness.</li></ul>
Tested with	9 Ukrainian refugee women and 6 children

### OVERVIEW

This activity combines a dialogical exhibition tour with a hands-on creative workshop. Participants explored George Nuku's artistic interventions in the Manatunga exhibition, which address plastic pollution, the sacredness of nature, and Indigenous relationships with the ocean. Afterwards, they took part in an upcycling workshop. Using discarded plastic bottles, they create fish sculptures, transforming waste into symbolic marine life. This process encourages reflection on environmental responsibility, consumer culture, and the role of art in envisioning alternative futures.

### Context

The Ethnological Museum has conducted activities outside its traditional walls to engage target audiences in their neighborhoods and in more accessible public green spaces for those with limited prior contact with the museum. This approach aims to break down the hierarchical space of the institution, bringing its programs into the public sphere and making the museum's environmental and ethnological topics more inclusive. Additionally, the educational program also seeks to lower barriers to engagement, inviting underserved communities into the museum. Through this activity, a guided dialogical tour, combined with an upcycling workshop,

the museum wants to create a welcoming atmosphere, encouraging participants with little museum experience to engage with its environmental ethnological topics, including climate change, and share their own perspectives.

The activity is inspired by the Manatunga intervention by Māori artist George Nuku, on display at the Ethnologisches Museum since May 2025. George Tamihana Nuku is one of the most important contemporary Māori artists. With his intervention at the Ethnologisches Museum, Nuku combines historical objects with his own Plexiglas sculptures to reflect on the relationship between humans, nature, and culture, addressing both ancient myths and contemporary issues such as climate change.

Nuku's work serves as a starting point for discussions on human-environment relationships and climate change, presented through a visually engaging artistic lens. His large-scale installations combine historical objects from the museum's collection with his own Plexiglas sculptures, bridging the gap between past and present. By exploring the connection between art, spirituality, and the environment, Nuku invites reflection on our responsibility for the future. Artistic approaches, such as Nuku's, are crucial in communicating complex issues such as climate change, offering accessible and emotionally impactful ways to engage wider audiences in vital discussions.

## **SUGGESTED SCENARIOS**

The activity takes place in two separate spaces: An Exhibition space, a quiet gallery or museum space suitable for a guided tour, allowing participants to engage with the artworks and exhibition content without major disturbances. A Workshop room: A well-lit, ventilated room equipped with tables, chairs, and access to electricity. The space should be suitable for creative, hands-on activities and allow for safe use of tools and materials. Both spaces should be easily accessible and located close to one another to ensure a smooth transition between the tour and the workshop.

## **Description**

### **Part 1: Welcome and Self Introduction**

Before the activity began, participants were welcomed, given a brief overview of the program, and invited to share a short reflection on their personal experiences or emotions related to water.

### **Part 2: Guided Museum Tour with Reflection and Discussion**

The combined activity begins with a guided tour of the Manatunga exhibition by renowned Māori artist George Tamihana Nuku. His work intertwines traditional Māori materials and mythology with contemporary issues such as plastic pollution and climate change. Participants explore large-scale installations that connect past and present by merging historical objects from the Ethnological Museum's collection with modern sculptures made from Plexiglas.

A highlight is the transparent waka (traditional canoe) installation, depicting the mythological figure Maui fishing plastic waste from the ocean.

### **Part 3: Upcycling Workshop**

Following the tour, participants engage in a hands-on upcycling workshop. Beforehand, they are encouraged to bring old plastic bottles, the museum staff collected additional bottles beforehand. In the workshop, participants creatively transform these discarded materials into artistic representations of marine creatures such as jellyfish and fish. This process encourages reflection on plastic pollution, sustainability, and Indigenous perspectives on the relationship between humans and nature. Through this artistic intervention, waste is reimaged as a source of creativity and meaning, fostering ecological awareness and personal responsibility.

#### Part 4: Presentation of underwater creatures and wrap up

At the end of the activity, the group took their upcycled underwater creatures to the exhibition space, where George Nuku's underwater installation is displayed. Each participant presented their creature to the group and shared a short story about it. To conclude, we took a group photo with all the participants and their creations, which was later shared in the Ukrainian Community's Telegram group.

#### TIMING

- Part 1: Welcome and Self Introduction (approx. 10 min.)
- Part 2: Guided dialogical tour with Reflection and Discussion (approx. 40 min.)
- Part 3: Upcycling Workshop and Discussion (approx. 55 min.):
- Part 4: Presentation of underwater creatures and wrap up ((approx. 15 min.)



Upcycling workshop on underwater creatures.

#### REFLECTION QUESTIONS FOR THE PARTICIPANTS

- What message do you think George Nuku wants to convey with his interventions?
- How did the combination of traditional stories and modern materials affect your view on plastic and pollution?
- Can art change the way we think about environmental issues? Why or why not?
- What parallels or differences do you see between environmental problems in Oceania and Europe?
- How did it feel to turn plastic waste into something creative?
- What does the process of upcycling teach us about value and transformation?
- Which part of the activity made you think differently about your own relationship with nature?
- What small actions could you take in your daily life to reduce plastic waste?
- How can museums support environmental awareness and cultural dialogue?

Materials	Settings	Topics
<ul style="list-style-type: none"> <li>· A quiet and spacious room or exhibition area for the guided tour</li> <li>· A separate workshop space with tables, chairs, and enough room for crafting Bean bags</li> <li>· Clean, empty plastic bottles (brought by participants and collected in advance)</li> <li>· Optional: Additional plastic waste materials (e.g. caps, packaging, bubble wrap, etc.)</li> <li>· Scissors, cutters (child-safe if needed), a cordless drill (for drilling holes in plastic bottles, if needed)</li> <li>· String, wire, tape, and other fastening materials</li> <li>· Optional: Hot glue guns or strong craft glue (works also without)</li> <li>· Optional: Decorative materials: colored foil, markers, paint, tissue paper, etc.</li> </ul>	<p>No specific setting is required for this activity.</p>	<p>Māori worldview and ocean connection, plastic pollution and marine ecosystems, mythology and environmental storytelling, indigenous contemporary art, upcycling and sustainability, relations of colonial history and climate justice, Oceania – Europe environmental comparisons.</p>

## REFLECTION QUESTIONS FOR THE DESIGNER/FACILITATOR

### How do you value participants' experience?

This activity fosters two-way dialogue by creating spaces for shared exploration and co-creation. It begins with participants sharing personal reflections on water, establishing a foundation of trust and mutual curiosity. During the guided tour of George Nuku's exhibition, the facilitator encourages open discussion by linking Māori mythology and contemporary issues like plastic pollution, inviting participants to connect their own perspectives with the artist's work. The upcycling workshop deepens this exchange, as participants and facilitators collaborate hands-on, transforming waste into art while discussing sustainability and Indigenous worldviews. Finally, the presentation of upcycled creatures allows participants to share stories and respond to one another, ensuring that expertise and personal insights flow freely in both directions.

### How do you reinforce two-way dialogue among participants, facilitators, and experts?

Participants' experiences are centered and valued throughout the activity. The opening reflection on water validates their personal connections to the topic, while the upcycling workshop empowers them to express their ideas creatively. By transforming plastic waste into meaningful art, participants become active contributors rather than passive learners. Their creations and stories are showcased in the final presentation, and the group photo – shared in the community's Telegram group – publicly acknowledges their contributions. This approach ensures that their emotions, cultural backgrounds, and creativity are not just included but essential to the collective experience.

## FACILITATOR'S NOTES

- Many Ukrainian women have come to Germany with their children but without their husbands. To address them, this event responded to the different interests of mothers and children: the guided tour was designed in such a way that the content was interesting and relevant for both age groups. Through the dialogical approach and the discussion, personal interests and connections could also be integrated into everyday life.
- The upcycling workshop was aimed at the children. However, the jellyfish and fish made from bottles had previously been staged during the tour as an intervention by George Nuku in a museum showcase on the underwater world of Oceania. This appreciation of the upcycled

objects also strengthened the adults' interest in discovering how sea creatures can be created. Thus, most of the mothers were also interested in crafting their own sea creatures.

## Appendix

### When this activity is suitable

- Ideal when the target group is parents with children
- If the workshop is targeted exclusively at adults, a more focused approach is necessary: adults need to have a clearer understanding of the purpose behind the upcycling activity. Unlike mothers and children, who often take their crafted fish and sea creatures home as a memento of a shared afternoon, adults are less likely to want to keep these items. Therefore, the workshop could be designed more as a social event with the goal of creating pieces that will be exhibited afterwards.

### When this activity is less suitable

- Not suitable for people with physical disabilities limiting fine motor skills
- Not suitable for very young children who lack the necessary motor abilities
- Not suitable for participants with severe allergies or sensitivities to plastics or art materials
- Not suitable for groups with very limited time, as the workshop requires focused, hands-on engagement
- Not suitable for settings without adequate space or materials for creative work

### Additional resources

- More information on the Intervention of George Nuku in Ethnologisches Museum on the website: [Manatunga – Artistic Interventions by George Nuku](#)

## 20. Indigenous knowledge for sustainable futures

Designed and tested by: Ethnological Museum, Berlin, Germany

### In brief

Duration	135 min
Number of participants	6–15
Number of facilitators	1–3 (1 translator, if needed, 1 expert or educator on climate/environmental topics, 1 expert in theatre formats and collaborative storytelling (note: depending on the team's experience, one person may cover multiple roles.)
Special materials	<ul style="list-style-type: none"><li>• Clean, empty plastic bottles</li><li>• Optional: Additional plastic waste materials</li><li>• Scissors, cutters</li><li>• String, wire, tape, and other fastening materials</li><li>• Optional: Hot glue guns or strong craft glue</li><li>• Optional: Decorative materials: colored foil, markers, paint, tissue paper, etc.</li></ul>
Objectives	<ul style="list-style-type: none"><li>• Fostering an understanding of indigenous worldviews and their spiritual relationships with nature</li><li>• Strengthening awareness of the ongoing relevance and resilience of indigenous traditions.</li><li>• Exploring cultural diversity in ecological knowledge and sustainable living practices</li><li>• Encouraging critical reflection on our own relationship with the natural world and about resource justice</li><li>• Supporting creative expression and exchange of perspectives through body, voice, and storytelling.</li><li>• Promoting empathy, collaboration, and imaginative thinking in envisioning alternative futures.</li></ul>
Tested with	<ul style="list-style-type: none"><li>• 9 Ukrainian women and 2 children</li><li>• 3 Ukrainian women, 2 children</li></ul>

### OVERVIEW

During the tour at the Ethnological Museum, participants explored how indigenous cultures of the Americas perceive nature as sacred and alive. They learned about the spiritual relationships with forests, rivers, and animals among First Nations in Canada, the Aztecs' nature deities and floating gardens, and Amazonian beliefs in transformation and balance with the environment. In the theatre workshop, the group reflected on their own relationship with nature through movement, voice, and storytelling. Participants collaboratively created a story imagining a future of coexistence between humans and nature.

## Context

The Ethnological Museum has conducted activities outside its traditional walls to engage target audiences in their neighborhoods and in more accessible public green spaces for those with limited prior contact with the museum. This approach aims to break down the hierarchical space of the institution, bringing its programs into the public sphere and making the museum's environmental and ethnological topics more inclusive. Additionally, the educational program also seeks to lower barriers to engagement, inviting underserved communities into the museum. Through this activity, a guided dialogical tour, combined with a theatre workshop, the museum wants to create a welcoming atmosphere, encouraging participants with little museum experience to engage with its environmental ethnological topics, including climate change, and share their own perspectives in an open discussion as well as through artistic expression and storytelling.

The activity provides a broad overview of environmental ethnology topics in the Ethnological Museum's exhibition, with a focus on historical and contemporary human-environment relationships in Indigenous societies of North and Central America and how these relationships are expressed artistically and culturally. Following the tour, participants engage in a theatre-based format and a future storytelling exercise, allowing them to connect with the content and express their own visions of human-environment relationships in creative ways. Artistic approaches, such as the theatre exercise or the future storytelling element, are crucial in communicating complex issues such as climate change, offering accessible and emotionally impactful ways to engage wider audiences in vital discussions.

### SUGGESTED SCENARIOS

For the second part an (exhibition) space is suggested with visual material of choice, presenting a climate- or environment-related topic. For the third to sixth part a (semi-) private room or a quiet corner with low to none visitor traffic will be appropriate. Sufficient open floor space is important for the physical theatre component, and flexible seating (e.g. bean bags or floor cushions) helps to create a relaxed and informal atmosphere.

## Description

This activity consisted of three interconnected parts that combined museum education, cultural learning, and creative expression to explore human relationships with nature through the lens of Indigenous cultures of the Americas.

### Part 1: Welcome and Self Introduction

Before the activity began, participants were welcomed, given a brief overview of the program, and invited to share a short reflection on their personal experiences or emotions related to nature.

### Part 2: Guided Museum Tour

The program began with a guided tour at the Ethnological Museum, focusing on the diverse ways in which Indigenous communities from North, Central, and South America understand and relate to nature. Participants learned that nature is often seen as a living, sacred force: forests, rivers, and animals are considered spiritual relatives. We explored the worldview of the First Nations of Canada, who hold the cedar tree as a symbol of strength and protection, and use it to build canoes, houses, and ritual objects. Aztec culture, on the other hand, views nature as closely linked to gods like the Sun, Rain, Earth, and Maize. We discussed Aztec creation myths and their "floating gardens" (chinampas), which reflect a sustainable way of farming. To connect these traditional practices to present-day ecological approaches, we also looked at contemporary urban farming methods and referred to the Roof Water-Farm project by TU Berlin, where hydroponic systems

are used to recycle water and grow food in urban settings. In Amazonian cultures, humans are seen as one being among many in a shared spiritual world. Through masks, totem poles, and other artifacts, participants encountered examples of how these cultures express ecological knowledge and spiritual beliefs.

### **Part 3: Reflection and Discussion**

After the tour, we created space for reflection and exchange. Through guided discussion, participants were encouraged to draw connections between Indigenous perspectives and their own experiences with nature. What values or practices resonate with us today? What can we learn from these worldviews? How do Western society and economy relate to nature? These questions helped deepen participants' awareness of different ecological approaches and initiated a personal reflection on our responsibilities toward the environment.

### **Part 4: Theatre Workshop**

In the theatre workshop, participants engaged in physical exercises and improvisations to explore their personal relationship with nature. Using body language and group interaction, they expressed emotions and ideas about how humans relate to the natural world.

This process encouraged awareness of individual and collective connections to the environment through movement and embodiment.

For workshop details see the Annex 5: SPK Theatre Workshop

### **Part 5: Collaborative Future Storytelling**

Building on the theatre exercises, participants collectively created a story: each participant contributed a short sequence imagining a future where humans, animals and nature coexist in balance. These personal visions were woven into a shared narrative, with each person building on the ideas of the previous speaker. This creative process allowed participants to use not only their voices and bodies but also their imagination, fostering creativity and empathy as well as a collective vision of hope, respect, and interconnectedness.

### **Part 6: Feedback and Wrap up**

The activity concluded with a brief feedback round, where participants shared how they felt during the different parts of the activity and offered suggestions for improvement based on their personal perspectives and needs.

### **TIMING**

- Part 1: Welcome and self-introduction (approx. 10 min.)
- Part 2: Guided dialogical tour (approx. 50 min.)
- Part 3: Reflection and Discussion (approx. 15 min.)
- Part 4: Theatre Workshop (approx. 50 min.):
- Part 5: Collaborative Future Storytelling (approx. 15 min.)
- Part 6: Feedback and wrap up (approx. 10 min.)



## REFLECTION QUESTIONS FOR THE PARTICIPANTS

- Which values or practices from Indigenous perspectives resonate with you the most?
- What can we learn today from these worldviews about how to relate to nature?
- How do you personally perceive your relationship with nature?
- In what ways does the Western view of nature differ from the Indigenous perspectives presented?
- How do economic systems and modern societies influence our relationship with the environment?
- What role could animals, plants, or other non-human beings play in our daily lives?
- How can we live in harmony with nature? Which challenges can you think of from your personal perspective?
- What changes do you wish to see in the future regarding our interaction with the environment?
- How can you act more responsibly in your daily life toward the environment?  
What efforts can you expect from different parts of society, such as politics, the economy, or wealthier social groups?
- What significance do rituals, art, or stories have for understanding nature?
- What might a shared future look like where humans and nature coexist in balance?

Materials	Settings	Topics
<ul style="list-style-type: none"> <li>·Exhibition space with objects, photographs, images or other visual material related to the topic of the guided tour.</li> <li>·Bean bags, floor cushions or other soft seating help create a cozy and personal atmosphere to reduce possible inhibitions during the discussion and theatre exercises. But chairs will work, too.</li> </ul>	<p>No specific setting is required for this activity.</p>	<p>Indigenous worldviews on nature as sacred and alive, Spiritual relationships with forests, rivers, animals, and plants, more than human approaches, Sustainable and traditional practices and their contemporary connections, Reflection on personal and societal relationships with nature, Exploration of ecological responsibility and environmental ethics, Creative expression through body movement and theatre, Collaborative storytelling envisioning future human–nature coexistence.</p>



## REFLECTION QUESTIONS FOR THE DESIGNER/FACILITATOR

### How do you value participants' experience?

This activity fosters two-way dialogue by integrating interactive exploration, personal reflection, and creative co-creation. The guided tour encourages participants to ask questions and share observations as they engage with Indigenous perspectives on nature. Facilitators act as bridges, connecting historical knowledge to contemporary issues and inviting participants to relate artifacts and myths to their own lives. The reflection discussion deepens exchange by posing open-ended questions (e.g., "What resonates with you today?"), while the theatre workshop and storytelling transform dialogue into embodied and collaborative expression. Experts' insights blend with participants' voices as they build a shared narrative, ensuring that knowledge flows in all directions: from cultural traditions to personal experiences and future visions.

### How do you reinforce two-way dialogue among participants, facilitators, and experts?

Participants' experiences are centred at every stage. The activity begins by honouring their personal connections to nature, validating diverse emotions and backgrounds. During the tour and discussion, their questions and reflections shape the conversation, while the theatre and storytelling exercises empower them to articulate their relationships with the environment through movement, voice, and imagination. The collaborative future story elevates their ideas into a collective vision, and the feedback round ensures their needs guide improvements. By weaving Indigenous wisdom with participants' unique perspectives, the activity positions them as active contributors, not just learners, but as co-creators of meaning and ecological awareness.

## FACILITATOR'S NOTES

- When working with a mixed group of adults and children, it can be challenging to balance the depth of the topics in a way that keeps both groups equally engaged. While the adults later expressed a desire for more in-depth content, the children wished for a greater focus on interactive elements, especially the theatre segment.
- On the other hand, the mix of adults and children also helped some adults overcome their initial hesitation or reservations about the theatre exercises, as they were inspired by the children's spontaneity, impulsiveness, and joy
- The theatre exercise would benefit from more time, as it allows for a deeper engagement with the topics through this creative approach.

## Appendix

### When this activity is suitable

- Ideal in contexts that link ecology with cultural heritage, such as museum education, intercultural learning, or global citizenship programs
- Working with diverse, international groups: Especially effective when participants come from different cultural backgrounds and can compare experiences (e.g., migrants, exchange students, intercultural youth groups)
- When participants benefit from non-verbal, sensory methods like theatre performance
- When addressing cultural identity and diversity helps build trust and relevance
- When the group includes people with refugee or migration backgrounds who can relate to cultural perspectives on animals and nature, finding connection and belonging through them.

### When this activity is less suitable

- When participants have very limited attention span or high stress levels that make engagement in detailed activities difficult
- When participants lack basic language skills and no interpretation or multilingual support is available, making communication too challenging
- When the setting is very large or if one plans for a big group there is limiting time and space for personal sharing and theater practice
- When the participants have physical or sensory impairments that cannot be accommodated
- When the workshop's focus doesn't resonate with the group's interests.

### Additional Resources

TIM Toolkit. A practical guide output of the Theatre in Mathematics project produced by SCT Centre, describing in detail many theatre exercise, part of the TIM methodology.

<https://old.theatreinmath.eu/outputs/tim-methodology>

## 21. Giving voice to climate: participants as science communicators

Designed and tested by: Universcience and Traces, Paris, France

### In brief

Duration	6 sessions of 2 hours each
Number of participants	10-15
Number of facilitators	2-4
Special materials	<ul style="list-style-type: none"><li>• Posters with diverse mediation activities</li><li>• Cards with pictures or illustrations</li><li>• Data from press and scientific articles on plastic pollution and food (with diverse perspectives and reliable sources)</li><li>• Final flip posters</li><li>• Tap</li><li>• Large paper sheets</li><li>• Coloured stickers</li></ul>
Objectives	<ul style="list-style-type: none"><li>• To learn key facts about climate change through the knowledge of fellow inmates, resources, and discussions with a researcher</li><li>• To become an active participant in addressing these issues by creating educational content on climate change</li><li>• To create new forms of relationships and connections to learning in a highly desocialized environment</li></ul>
Tested with	Prisoners (between 10 and 15 participants per session)

### OVERVIEW

This activity invites participants to become science communicators, exploring climate and environmental issues through dialogue and creation. After expressing their own knowledge and meet a researcher who answers their questions, participants design an educational tool - such as posters, debates, or interactive panels - to share their understanding with others.

### Context

The activity was tested in a prison environment with inmates participating voluntarily. The group was composed of people with varying knowledge levels and interests. The sessions took place in a small, secure room with limited materials and no internet access.

### SUGGESTED SCENARIOS

This activity is particularly suitable for groups with limited access to scientific debate or for participants who may not usually see themselves represented in educational or cultural spaces. Small groups (8–15 participants) ensure that everyone can contribute, whether through research, discussion, or practical tasks such as designing and presenting their materials. This makes the format particularly valuable for projects aiming to strengthen critical thinking, self-expression, and public engagement with environmental questions.

## Description

The process combines dialogue, and prototyping: participants exchange views, interact with a researcher, and create a tool to share their understanding of climate issues. The workshop takes place over six sessions of around two hours each, alternating between dialogue, reflection, and creation

### Session 1 – Exploring perceptions

Participants share what they know and think about climate change through a facilitated discussion and playful activities. The group identifies common themes and questions to explore further.

### Session 2 – Dialogue with a researcher

A researcher joins the group to answer participants' pre-recorded questions. The exchange is designed as a conversation rather than a lecture, allowing participants to challenge, react, and deepen their understanding.

### Sessions 3 to 5 – Prototyping an educational format for the final session

Working in small groups, participants choose a topic related to climate issues. Then they decide which questions they want to raise about this topic and how to share this knowledge (e.g., poster, interactive panel, debate game) to others. Facilitators support them in both substance (content and documentations) and form (format, visual elements).

## TIMING

### Session 1 – Exploring Representations of Climate Change (2 hours total)

15 min	<b>Introduction</b> Facilitators welcome participants, introduce themselves, explain the session's goals and outline the programme.
20 min	<b>Mind Mapping on Climate Change</b> Participants write key words on sticky notes to create a shared map of concepts, emotions, and experiences related to climate change. Similar ideas are grouped together.
30 min	<b>Corporeal sociometry</b> In subgroups, participants imagine the world in 50 years. Facilitators help define concrete and understandable scenarios. <ul style="list-style-type: none"><li>• 10 min Global perspective: "What will the world look like in 50 years?"</li><li>• 10 min Personal perspective: "What will our lives be like?"</li><li>• 10 min Plenary: groups share their visions; facilitators acknowledge emotions that may emerge (hope, anger, helplessness, etc.).</li></ul>
15 min	<b>Extreme Weather Events</b> Participants co-create a mind map of extreme climate events and classify them by likelihood, severity, and level of concern. (Topic linked to the researcher's expertise in Session 2.)  Note: this topic was chosen according to the expertise field of the researcher coming in Session 2.

10 min

### Preparing Questions for the Researcher

Participants write questions to ask the researcher next time.  
Facilitators collect and organise them by theme.

Facilitators' homework: organise questions thematically and brief the researcher on the group's dynamics and interests.

## Session 2 – Meeting the Researcher (90 minutes)

10 min

### Introduction

Welcome and name tags.

15 min

### Icebreaker

Participants (including the researcher) each select an image representing research work and explain their choice.

40 min

### Researcher Presentation

The researcher answers the questions collected in Session 1, focusing on extreme weather events.

15 min

### Projection for the Future

Small groups select an image representing solutions to climate change, discuss, and present briefly to the group. Depending on the audience, adapt the projection to how far they can imagine solutions for the future.

15 min

### Conclusion

Informal conversation with the researcher and presentation of possible formats for the next session (debate, workshop, exhibition, etc.).



Session 2 - Various formats that participants are invited to use for their final presentation

### Session 3 – Choosing Educational Formats for the final session (90 minutes)

In this session participants choose:

- How to share knowledge
- The topic to present
- The questions about climate
- The format used to discuss with other fellow inmates who will be their audience.

15 min	<b>Introduction and Evaluation</b> Participants vote with coloured confetti on statements such as 'I understand better researchers' work' to evaluate the previous session.
10 min	<b>Feedback Discussion</b> Participants share what they learned from the researcher's visit.
70 min	<b>Choosing Topics and Formats</b> Facilitators present possible formats (game, debate, role play, exhibition). Participants brainstorm, form subgroups, and complete a planning sheet.

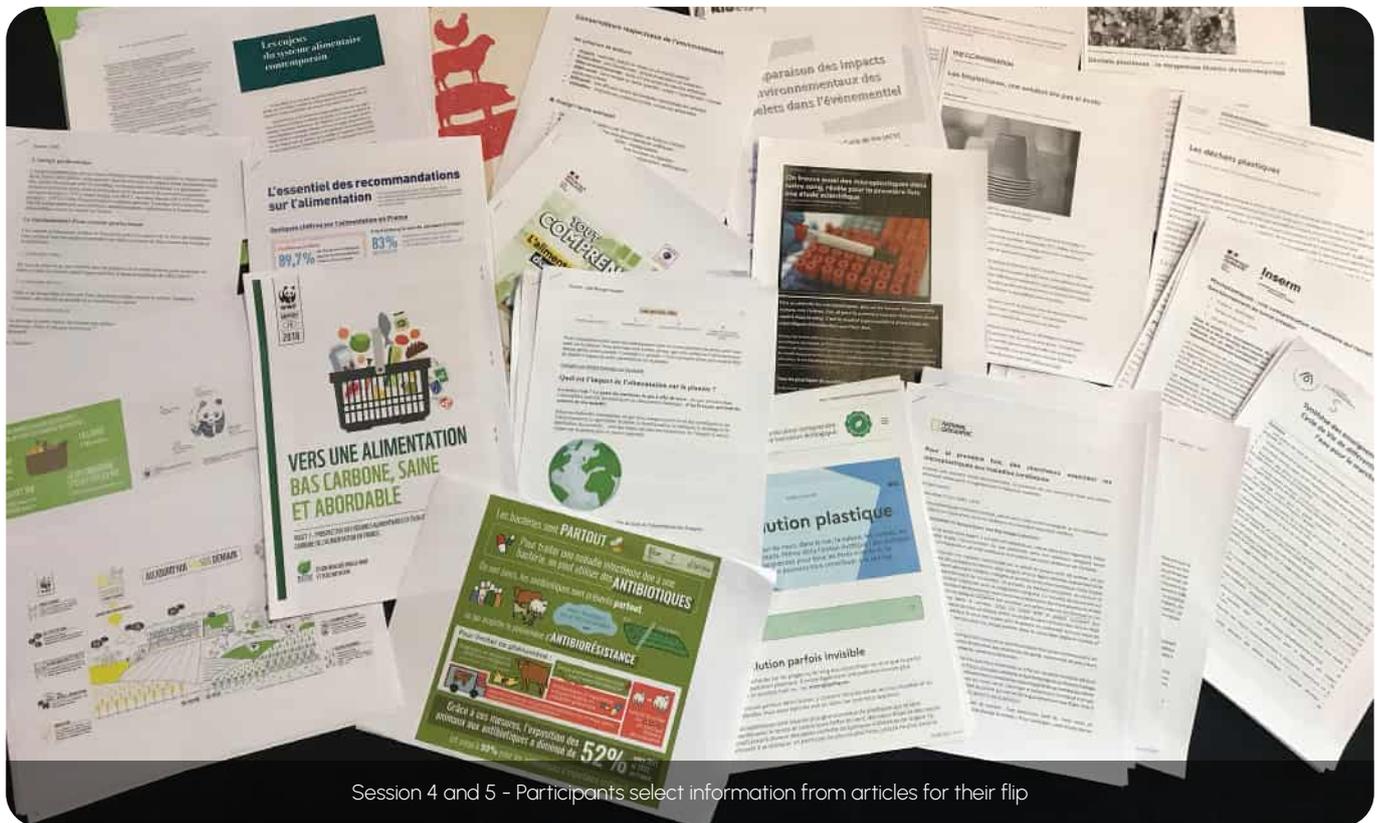
### Session 4 – Co-Creation and Prototyping (Approx. 80 minutes)

10 min	<b>Introduction &amp; Recap</b> Facilitators remind participants of the topics chosen in the previous session (e.g. plastic waste, industrial food). The concept of prototyping is introduced, emphasizing the goal of producing a first version of the educational format.
20 min	<b>Presentation of Facilitation Formats</b> Facilitators show examples such as: Flip posters (question front / answer back), Object classification, True/False cards, Moving debate, and Confetti-vote activity.
5 min	<b>Group Formation</b> Participants regroup according to their chosen topic or preferred format.
45 min	<b>Prototype Creation</b> Each group designs a first prototype, defining a key question and materials. Facilitators assist in identifying documentation needs for the next step.
	<b>Facilitators' homework</b> Between Sessions 4 and 5: gather supporting documentation (scientific articles, infographics, press excerpts) that will help participants deepen their topics.  Note: in the prison context, access to printed or online materials is limited.

In the context of a prison participants don't freely have access to press articles printed or online.

#### Facilitators' homework

After sessions 3 and 4, facilitators collect documentation (2 pages max - science and press article, book, infographic...) to support each subgroup in the chosen thematic.

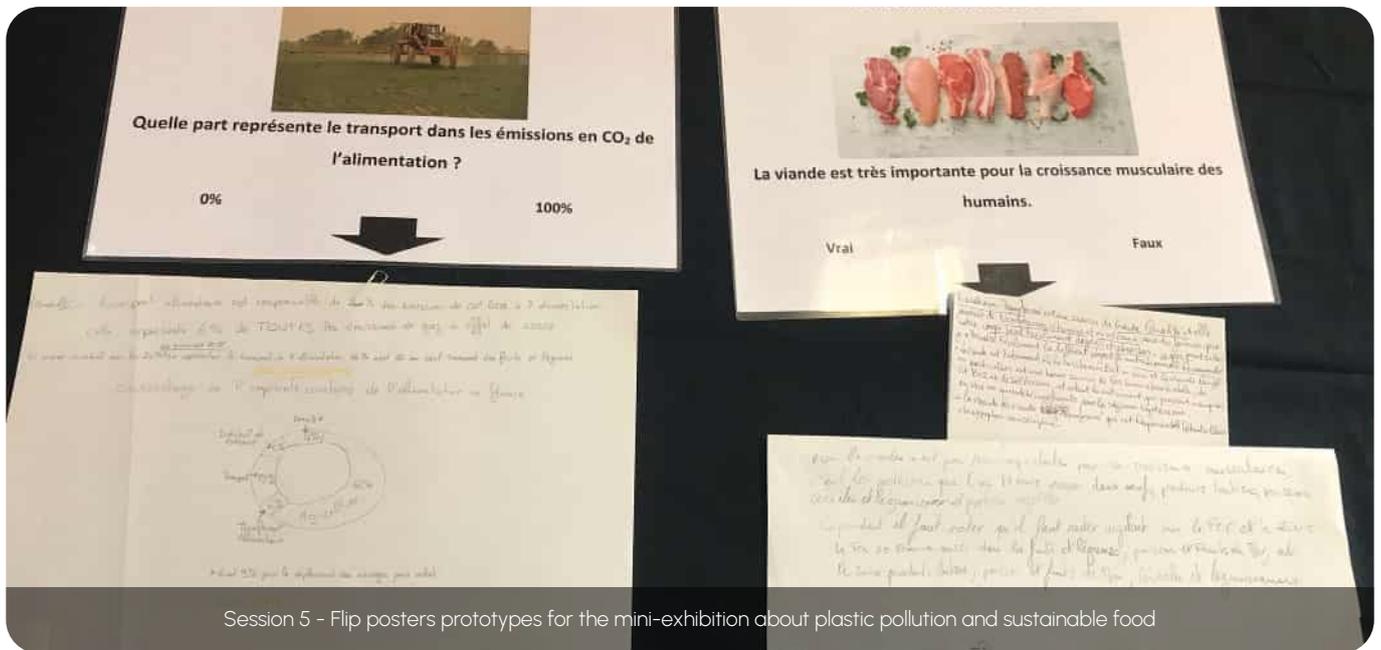


Session 4 and 5 - Participants select information from articles for their flip

## Session 5 – Research and testing (Approx. 90 minutes)

Aim of this session: produce a prototype ready to test at the end of session 5.

10 min	<p><b>Introduction &amp; Recap</b></p> <p>Facilitators recall prototypes created in Session 4 and restate the aim: refine and test them before the final presentation.</p>
10 min	<p><b>Prototype Presentation</b></p> <p>Facilitators show an example of a facilitation format (e.g. flip poster: question on front, explanation on back).</p>
5 min	<p><b>Group Formation</b></p> <p>Participants split into subgroups according to their topic of interest. Facilitators distribute collected documentation.</p>
45 min	<p><b>Prototype Refinement</b></p> <p>Subgroups read the selected materials and decide what information to include. Participants write or draw the explanatory part of their poster, adding possible interactive elements.</p>
35 min	<p><b>Prototype Test</b></p> <p>Groups present their posters to each other, simulate facilitation, and gather feedback for refinement.</p>
	<p><b>Facilitators' homework</b></p> <p>Between Sessions 5 and 6: prepare final printed versions of all flip posters for public presentation.</p>



Session 5 - Flip posters prototypes for the mini-exhibition about plastic pollution and sustainable food

### Session 6 – Final Presentation (Approx. 60 minutes)

<b>10 min</b>	<p><b>Welcome and Setup</b> Participants and guests gather around a shared snack. Posters are displayed in the room.</p>
<b>10 min</b>	<p><b>Presentation and Discussion</b> Each group presents its final flip poster. Visitors place coloured stickers to express opinions. Participants lead short discussions and respond to questions.</p>
<b>5 min</b>	<p><b>Closure</b> Collective appreciation and reflection. Facilitators summarise the process - from learning to communicating. Posters remain exhibited as a visible outcome of the project.</p>



Session 6 - Final production: flip posters about plastic pollution, created by prisoners

Ca paraît une solution acceptable. Cependant, si l'on

Materials	Settings	Topics
<ul style="list-style-type: none"> <li>· Sticky notes</li> <li>· Posters with diverse mediation activities</li> <li>· Cards with pictures or illustrations</li> <li>· "Cotillons" for voting</li> <li>· Data from press and scientific articles on plastic pollution and food (with diverse perspectives and reliable sources)</li> <li>· Final flip posters</li> <li>· Tap</li> <li>· Sticky tack (Blu-Tack)</li> <li>· Paper name tags</li> <li>· Pens</li> <li>· Large paper sheets</li> <li>· Coloured stickers</li> </ul>	<ul style="list-style-type: none"> <li>· Tables, chairs, whiteboard.</li> <li>· The room should be flexible, allowing smooth transitions between plenary work and smaller subgroups, which happens in almost every session.</li> </ul>	<p>Climate change, environmental issues. The topic depends on participants' interests. In the project, they decided for: plastic pollution and sustainable alimentation.</p>

## REFLECTION QUESTIONS FOR THE DESIGNER/FACILITATOR

### How do you value participants' experience?

Participants' experiences were valued through multiple forms of interaction — questions, debates, exploration, and creative production — across the six sessions. Mind-mapping activities were the main way to collect and visualize participants' thoughts on climate change and related themes. This visual format sparked discussions and made abstract ideas tangible.

For example, participants were asked to respond to questions such as:

- What does climate change mean to you?
- Can you give an example of an extreme climate event?

When exploring extreme weather events, participants used a graph with two axes ("gravity" and "occurrence") to evaluate how seriously they perceived different events.

Due to the prison context, participants could not discuss their personal histories, which limited how deeply previous experiences could be shared. However, as trust developed, some participants began expressing more personal knowledge or reflections. Their voice and their personal experiences were also valued during the expression of possible future scenarios and solutions for climate change. They were also free to add personal knowledge for the explanation of flip posters, if they wanted to.

Facilitators learnings:

- Use visual and participatory tools (like mind maps and ranking graphs) to make abstract or complex topics accessible.
- Encourage gradual sharing by building trust and adapting to participants' comfort levels.
- Accept that not all participants will contribute equally — and that observation is also a valid form of participation.

### How do you reinforce two-way dialogue among participants, facilitators, and experts?

Facilitator–expert collaboration

Two preparatory meetings were held with the researcher to present the project and co-design the session. The researcher received participants' questions in advance and selected which to answer according to its expertise field.

The researcher also contributed ideas - for instance, using cards to collect representation of researcher's work - and shared its concerns about engaging with this audience. Having an existing relationship with the expert and familiarity with the communication style made this collaboration smoother. It is important that the researcher reacts to questions instead of making a lecture.

### Expert–participants interaction

Participants prepared written questions for the researcher and asked others spontaneously during the visit. The researcher moved between small groups, engaging directly with participants. After the talk, prisoners approached the researcher for further discussion. Some debates also emerged, for example around the funding of her research - a topic that reflected participants' strong sense of critical thinking and integrity.

### Facilitator–Participants Relationship:

After a noisy first session due to high participation, the facilitation team established communication rules (active listening, respectful speech, equal participation), which significantly improved group dynamics. Over time, trust and familiarity developed: joking together and recognizing them as regular figures who listened and remembered their names.

### Facilitator's learnings:

- Building trust is essential before deeper dialogue can emerge.
- Preparation and transparency between facilitators and experts help manage expectations.
- Participants' critical perspectives should be embraced as part of the dialogue, not resisted.

## FACILITATOR'S NOTES

- Building trust is essential before deeper dialogue can emerge.
- Preparation and transparency between facilitators and experts help manage expectations.
- Participants' critical perspectives should be embraced as part of the dialogue, not resisted.

### What made the activity work well in this context?

- Having a representative who knew the participants well and could personally invite them to participate.
- Keeping the same facilitation team across all sessions to ensure continuity and trust.
- High level of interest among prisoners in environmental and scientific topics.
- Voluntary participation and active engagement in decision-making.
- Alternating group formats (plenary, subgroups, oral votes, sticker votes) to encourage participation from everyone.
- Establishing a horizontal, first-name basis relationship with participants.
- Involving an expert who was open to dialogue and willing to adapt to the audience.
- Producing a tangible, attractive output - a simple yet interactive exhibition that showcased their work.
- Leveraging existing affinities among participants to strengthen teamwork.

### Facilitator's learnings:

- Flexibility and adaptability are crucial in restrictive environments.
- Alternating between expressive and reflective activities maintains engagement.
- Tangible results (like an exhibition) help sustain motivation.

What difficulties emerged (e.g., emotional, relational, logistical)?

### Logistical:

- Variable schedules and unpredictable timing.
- Fluctuating group size and changing participants.
- Limited access to materials and no possibility to look up information.
- Small room unsuitable for subgroups.
- Need for clear objectives, but frequent adaptations to the plan.
- Restrictions on where outputs could be displayed.

### **Relational and Emotional:**

- Balancing equality with the facilitator's role as a guide and expert.
- Constantly repeating project progress for new participants.
- Ethical reflection on facilitation practices (e.g., use of printed materials vs. environmental impact).
- Occasional tension or dominance by some participants.
- Generational gaps within the group.
- Difficulty of asking personal question in order not to talk about subjects linked with crimes committed
- Heterogeneity within the group
- Misinterpretation of passive attitude in a complex context.

### **Facilitator's learnings:**

- Anticipate logistical unpredictability and prepare "light" adaptable versions of activities.
- Manage group turnover by starting each session with a quick recap.
- Recognize that expertise can emerge from unexpected participants - remain open and flexible.

### **Did any part of the format or facilitation style need to be adapted?**

- Maintain varied activity formats (debate, visual tools, games) but ensure equal speaking time.
- Allow flexibility in scheduling to adapt to institutional constraints.
- Adjust content for different knowledge levels.
- Consider running two sessions with the researcher to deepen understanding and encourage more questions.
- Hold sessions at consistent times and days to foster regular attendance.

## **Appendix**

### **When this activity is suitable**

- When the group already has a trust bond or stable dynamic.
- When participants are open to dialogue and embodied or expressive methods.
- When space is limited but adaptable.
- When the project can be short or long-term (a flip poster exhibition can be built in 4 or 12 sessions depending on the expectations - more or less precise answers, complex questions...)
- When participants have mixed literacy levels, as the activity doesn't require writing.
- When participants have different levels of knowledge

### **When this activity is less suitable**

- When participants are resistant to hearing differing opinions.
- For very large groups (over 15–20 participants).
- With people who do not speak or read the working language fluently.
- For groups only interested in lectures or theoretical learning.

### **Additional resources**

TIM Toolkit. A practical guide output of the Theatre in Mathematics project produced by SCT Centre, describing in detail many theatre exercise, part of the TIM methodology.

<https://old.theatreinmath.eu/outputs/tim-methodology/>

## 22. Building an interactive map to explore local biodiversity

Designed and tested by: Universcience and Traces, Paris, France

### In brief

Duration	4 workshop sessions of 3-hour
Number of participants	Max 20
Number of facilitators	2-4
Special materials	<ul style="list-style-type: none"> <li>• A globe looks alike ball</li> <li>• Digital &amp; Audio Tools</li> <li>• Computers or tablets with internet access</li> <li>• 1 computer with Audacity and an excel tab (</li> <li>• Participant's phones with Birdnet/Plantnet applications</li> <li>• Dictaphones</li> <li>• A loudspeaker</li> <li>• Collection tools and material</li> <li>• 1 exploration zone kit (printed park map with exploration zones, documentation sheets, pens, zip-lock bags, adhesive labels, plastic gloves)</li> <li>• Old journal papers</li> <li>• (Herbariums)</li> <li>• Harvest samples from the previous sessions (leaves, feathers...)</li> <li>• Herbariums or other representations created (drawings...)</li> <li>• Printed participants' photos (small size, on photo paper)</li> <li>• Printed illustrations of the sounds recorded</li> <li>• DIY Tools</li> <li>• Soldering tools and electronic devices (iron, wire, press buttons, Arduino board, small loudspeakers, battery etc..).</li> <li>• Red wool yarn and thumbtacks</li> <li>• A map dimension wooden plate with wooden strips</li> <li>• Woodworking tools (saw, hammer, screwdriver, a stapler..)</li> <li>• Map of the environmental place (1 draft + 1 final version)</li> </ul>
Objectives	<ul style="list-style-type: none"> <li>• Value participants' perceptions and knowledge about the environment</li> <li>• Encourage active participation through collective observation, exploration, and creation</li> <li>• Take ownership of the surrounding biodiversity by producing an interactive map of the park integrating sounds, photos, samples, and stories.</li> </ul>
Tested with	Young adults facing various challenges (school drop-out, family, social, language, attention or financial issues) enrolled in a national residential insertion program.

### OVERVIEW

This activity invites participants to explore their living environment - its plants, animals, and landmarks — while reflecting on the importance of environmental preservation.

Through outdoor explorations, a theater activity, and discussions with experts, they collect natural elements such as photos, objects, and sounds to create a large interactive map of their surroundings.

This map combines visual and sensory features (photos, plant samples, drawings, sound buttons...), crafted by participants, which can be manipulated to trigger sensory responses - for example, pressing a button to play a recorded sound or lifting a flap to reveal an image.



## Context

This activity was tested with young adults facing various challenges (school drop-out, family, social, language, attention or financial issues), enrolled in a national residential insertion program, EPIDE (Établissement pour l'Insertion dans l'Emploi / Establishment for Employment Integration). This program supports their professional and social reintegration into society (to find a job, learn French, get their driving licence...)

The young adults are living in residence in the center which is surrounded of the large park of Château de Montry (France), which includes remarkable trees and diverse species.

The activity was designed in close collaboration with the members of an insertion program, EPIDE, to raise awareness about biodiversity and climate change by exploring this park: collecting, meeting local experts to create an interactive map of their park.

At the end of the four sessions, the participants had created an interactive map about the biodiversity of the park, with the samples they collected (sounds, items, photos...)

Participants live on-site, making them a "captive audience," but the format can be adapted for voluntary groups.

The group's knowledge levels were highly heterogeneous: some participants already had familiarity with nature and climate issues, while others had little. Group size was larger than expected and changed between sessions, requiring adaptation. The strong involvement of EPIDE staff supported the process, and despite challenges, the group successfully produced the interactive map.

## SUGGESTED SCENARIOS

This activity is particularly suited for groups of young people or adults.

An ideal setting includes access to both an indoor workspace—equipped with tables, basic multimedia tools (tablets, recorders, speakers), and crafting materials—and an outdoor natural area, such as a park, courtyard, or garden, where participants can explore and collect observations.

It is especially relevant in youth centers, museums, schools, or vocational institutions interested in connecting environmental education with artistic or digital practices.

## Description

The sessions combine diverse formats: discussion, debate, outdoor exploration, expert input, and hands-on cooperative work. The activity runs over four 3-hour sessions:

### Session 1

Group introduction, icebreakers, theater exercises, discussions, and first collective decisions for the map.

### Session 2 and 3

Outdoor explorations in small groups, collection of plant and animal samples, photos, and sounds; exchanges with experts; archiving and preparation of map elements.

### Sessions 4

Final assembly of the interactive map, integrating collected materials and recorded content, followed by a collective presentation.

## TIMING

At the beginning of each session, the group gathers together while facilitators present the plan. Participants then split into smaller groups for specific tasks, and the session closes with a collective summary.

### Session 1 – Exploration of participants' perceptions through theater activity

This first session introduces participants to the concept of the interactive map through movement, reflection, and creative expression. It establishes group dynamics, fosters trust, and helps participants begin connecting their personal perceptions of nature to the collective project.

10 min

#### Introduction

Facilitators welcome participants, introduce themselves, explain objectives, and set basic ground rules for respectful dialogue and participation.

Purpose / Notes:

Creates a safe and inclusive environment for collective engagement.

15 min	<p><b>Icebreaker – Moving Debate</b></p> <p>Participants move across the room according to their opinions on light environmental statements (e.g., 'I find snails cute', 'Nature calms me'). They briefly explain their choices.</p> <p>Purpose / Notes: Encourages movement, openness, and awareness of diverse perspectives.</p>
30 min	<p><b>Material Presentation</b></p> <p>Facilitators introduce the concept of the interactive map and demonstrate tools (tablets, dictaphones, etc.). Participants discuss possible elements to include (photos, sounds, plant samples).</p> <p>Purpose / Notes: Clarifies project objectives and invites early co-design participation.</p>
20 min	<p><b>Artistic Activity – Warm-up</b></p> <p>Two short games encourage cooperation: 'Ball and Name' (sharing names and countries) and 'The Mind' (counting collectively without overlap). Alternatively, 'The Floor is Lava' can be used for groups needing more physical engagement.</p> <p>Purpose / Notes: Builds trust, listening, and collaboration among participants.</p>
30 min	<p><b>Artistic Activity – Theater Sculptures</b></p> <p>Participants respond physically to environmental words (e.g., 'climate change', 'the park at night'). Gestures are observed, discussed, and categorized on post-its by facilitators. Later, participants regroup based on similar gestures or ideas (e.g., trees, animals, friendship).</p> <p>Purpose / Notes: Stimulates embodied understanding and collective meaning-making.</p>
15 min	<p><b>Breaktime</b></p> <p>Facilitators categorize post-its into themes and prepare visual summary on the whiteboard.</p> <p>Purpose / Notes: Provides a transition moment and visual synthesis of emerging ideas.</p>
20 min	<p><b>Summary Discussion</b></p> <p>Facilitators recap and synthesize main ideas for the map. Participants can add new insights or refine previous ones.</p> <p>Purpose / Notes: Consolidates ideas and encourages shared ownership of the process.</p>
10 min	<p><b>Decision</b></p> <p>Participants vote to select which ideas will appear on the interactive map.</p> <p>Purpose / Notes: Democratizes decision-making and prioritizes collective choices.</p>

15 min	<p><b>Project Details</b></p> <p>Facilitators outline the next session (outdoor exploration, expert visit) and explain that participants can record questions or reflections for the expert.</p> <p>Purpose / Notes: Builds continuity and anticipation for the next phase.</p>
15 min	<p><b>Recording</b></p> <p>Participants record 20–30 second audio messages using prompts ('Hi XX, I was wondering...!', 'Today I learned that...!'). Facilitators ensure quiet spaces for recording.</p> <p>Purpose / Notes: Encourages reflection and communication through digital storytelling.</p>
3 min	<p><b>Conclusion</b></p> <p>Facilitators thank participants and confirm logistics for the next session.</p> <p>Purpose / Notes: Ends on an appreciative and motivating note.</p>

### Session 2 and 3 - Collection and expert exchange

These two sessions focus on outdoor exploration and exchange with an environmental expert. Participants collect natural elements, reflect on their environment, and contribute to building the interactive map. Each session follows a similar structure, combining theoretical input, observation, and creative documentation.

5 min	<p><b>Introduction</b></p> <p>Facilitators welcome participants, recap the previous session, introduce the expert (if present), and outline the day's program.</p> <p>Purpose / Notes: Creates continuity and clarifies learning objectives.</p>
30 min	<p><b>Group Constitution</b></p> <p>The expert (or facilitators) answers questions recorded in the previous session. Participants are encouraged to ask spontaneous questions. Facilitators moderate, rephrase complex terms, and link discussions to previous insights. Includes advice on observing and collecting samples responsibly.</p> <p>Purpose / Notes: Strengthens scientific understanding and models respectful dialogue with experts.</p>
10 min	<p><b>Theoretical Input</b></p> <p>Participants are divided into small groups, each assigned to an exploration zone in the natural surroundings (e.g., park areas).</p> <p>Purpose / Notes: Encourages small-group collaboration and responsibility.</p>

50 min

### Exploration - Part 1

Groups explore the assigned areas using provided tools to collect and label at least three samples (plants, sounds, photos).

To help with identification, you can use plant or bird sound recognition apps (e.g., PlantNet, BirdNet, etc.).

Facilitators explain collection protocol, assist identification, and ensure respect for the environment. In Session 2, some participants stay indoors to handle archiving; in Session 3, some work on technical preparation (e.g., soldering).

Note: it is important to insist on the fact that every sample needs to be perfectly located on the map and named (could be identity in the room after the exploration, however), to place them on the map later.

Purpose / Notes:

Applies learning through sensory and practical engagement with nature.



Session 2 and 3 - Gathering samples with an plant expert

20 min

### Breaktime

Refreshments are served. Facilitators continue archiving and organizing materials.

Purpose / Notes:

Allows rest and informal conversation, maintaining group cohesion.

15-20 min

### Recap of Exploration

Groups present their collected items. The expert provides comments on species identification and habitats, noting missing elements (e.g., sounds, photos).

Purpose / Notes:

Supports feedback, reflection, and deeper ecological awareness.

### Exploration - Part 2

Groups return outdoors for additional collection, focusing on new goals (e.g., new species, areas, or sound samples). They collect and archive three more samples following the same protocol.

30 min

Note: If time is missing, this session can be optional and reduced to prioritize another step.

Purpose / Notes:

Extends discovery and refines documentation practices.



Sessions 2 and 3 - Labeling and identification of gathered samples on the map

### Collective Discussion

The group gathers to discuss findings. A theater-based question from Session 1 may be revisited with the expert (e.g., 'What will the park look like in 100 years?').

15 min

Purpose / Notes:

Encourages synthesis, imagination, and connection to earlier symbolic work.

### Recording

Participants record reflections or new questions for the expert, using prompts such as 'What I learned today...!' or 'I was wondering if...!'

15 min

Purpose / Notes:

Reinforces reflection and communication while archiving group memory.

### Conclusion

Facilitators thank participants and the expert, previewing the next session (final map production).

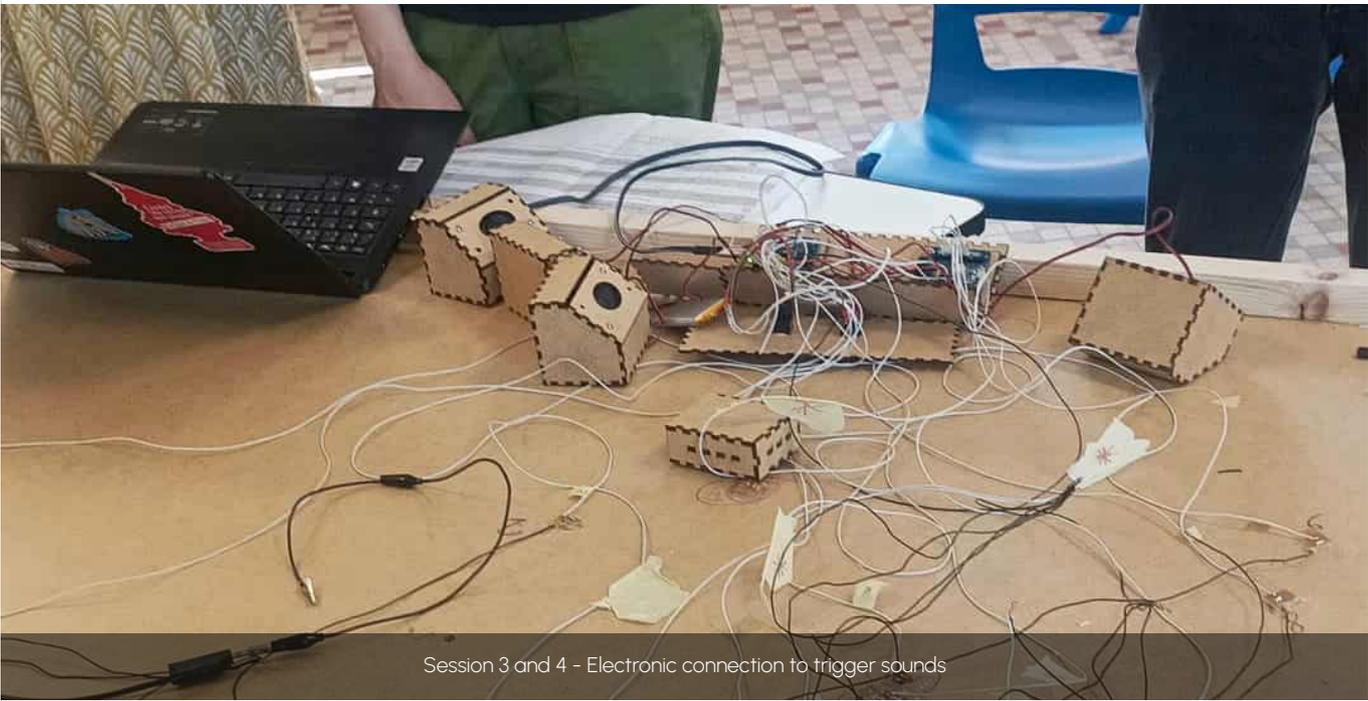
5 min

Purpose / Notes:

Closes with appreciation and maintains motivation for completion.

## Session 4 - Final session - Creation and assembly of the map

This final session focuses on assembling all the materials collected during the previous sessions. Participants work in small groups to construct and finalize the interactive map, combining sounds, images, and samples into a cohesive and functional piece.

15 min	<p><b>Introduction</b></p> <p>Facilitators welcome participants, recap the first three sessions, outline the day's schedule, and emphasize time management to ensure map completion.</p> <p>Purpose / Notes: Creates focus and continuity, setting a collaborative and goal-oriented tone.</p>
30 min	<p><b>Group Constitution</b></p> <p>Participants are divided into five task-based groups, each guided by a facilitator:</p> <ol style="list-style-type: none"><li>1. Sound Management – organize and link sound files, cut and glue representative images.</li><li>2. Wooden Frame Construction – build and wire the frame (Arduino, buttons, speakers, battery).</li><li>3. Photo Management – cut, label, and glue photos at their corresponding locations.</li><li>4. Anecdotes Recording – record short messages (20–30s) about the park, its species, or personal experiences.</li><li>5. Sample Management – finalize labeling, prepare herbariums, and attach samples (e.g., with wool and thumbtacks).</li></ol> <p>Purpose / Notes: Promotes distributed collaboration, linking artistic, technical, and scientific skills.</p>
 <p>Session 3 and 4 - Electronic connection to trigger sounds</p>	
60 min	<p><b>Construction Phase</b></p> <p>Groups work in parallel on their assigned tasks. The map and its frame remain separate until the final assembly to allow progress on all components simultaneously.</p> <p>Purpose / Notes: Encourages teamwork, time management, and integration of multiple creative processes.</p>

15 min

### Participation Feedback & Evaluation

Participants reflect on their learning experience by placing stickers on pre-written statements describing the activity.

Purpose / Notes:

Supports participatory evaluation and gives visibility to participants' perspectives.

20 min

### Breaktime

Snacks are provided while facilitators continue assembling the map and preparing final connections.

Purpose / Notes:

Provides rest, informal discussion, and momentum before finalization.

60 min

### Map Finalisation

All groups collaboratively assemble their components: sounds, photos, samples,

and anecdotes. The final map includes:

- Photos of plants/animals with liftable flaps showing their names.
- Samples (e.g., dried leaves, bark) connected to their location with string.
- Buttons triggering recorded sounds through an Arduino setup linked to a speaker.

The outcome is an interactive, multisensory map of the park.

Purpose / Notes:

Completes the creative and educational cycle with a tangible collective artifact.



5 min

### Conclusion

Facilitators present the completed map, thank participants, and invite them to test the interactive elements. The map remains at the hosting center as a lasting collective creation.

Purpose / Notes:

Reinforces achievement, closure, and ownership of the learning experience.

Settings	Topics
<ul style="list-style-type: none"> <li>· A large room for about 20 people, with space to move, form a circle, and work in groups.</li> <li>· Movable tables and chairs arranged in 4–5 islands, plus one large table for the map.</li> <li>· A whiteboard.</li> <li>· A space for plenary moments with benches/chairs.</li> <li>· Wi-Fi and access to electrical outlets required.</li> <li>· A zone for samples storage (until the next session)</li> </ul>	Biodiversity, local fauna, local species and their habitats, species identification, climate, history.

Resources	Session 1	Session 2-3	Session 4
Sticky notes, pencils, markers, glue sticks, tape, scissors, white sheets.	X	X	X
Paper sheets with instructions/ information	Icebreaker sentences Instructions for audio message	Instruction for audio messages	environmental information/anecdotes
Cardboard paper sheets with cuttable rectangles (to label the back of the photos)			X
A globe looks alike ball	X		
Digital & Audio Tools			
Computers or tablets with internet access (for research, photos, and sound recording)	X	X (one per zone)	X (one per zone)
1 computer with Audacity and an excel tab (recordings's names and the content match)			X
Participant's phones with Birdnet/Plantnet applications (required internet access, storage and a good sound/photo/video quality)	1	1 or 2 per group, if possible	
Dictaphones	one per group or zone to explore	one per group or zone to explore	4
A loudspeaker	X	X	X
Audio's participants messages from previous sessions		X	
Recorded sounds (archived in the drive account) from explorations		X	X
Collection tools and material			
1 exploration zone kit (printed park map with exploration zones, documentation sheets, pens, zip-lock bags, adhesive labels, plastic gloves)		1 folder/zone	
Old journal papers (Herbariums)		X (if oriented on flora)	
Harvest samples from the previous sessions (leafs, feathers...)		X (in session 3)	X

Herbariums or other representations created (drawings...)			X
Printed participants's photos (small size, on photo paper)		X	X
Printed illustrations of the sounds recorded			X
DIY Tools			
Soldering tools and electronic devices (iron, wire, press buttons, arduino board, small loudspeakers, battery etc..).	X	X (in session 3)	X
Red wool yarn and thumbtacks			X
A map dimension wooden plate with wooden strips			X
Woodworking tools (saw, hammer, screwdriver, a stapler..)			X
Map of the environmental place (1 draft + 1 final version)	X (draft)	X (draft)	X (final)

## REFLECTION QUESTIONS FOR THE DESIGNER/FACILITATOR

### How do you value participants' experience?

Participants' experiences were valued throughout the four sessions via debates, questions, exploration, and creation. They shared their perceptions of the environment, prior knowledge, and preferences for the map. Activities such as the theater game, "moving debate", and voting (Session 1) highlighted their voices and legitimized their input.

Hands-on activities (explorations, sample identification, map construction) also allowed participants to use diverse skills - such as photography, drawing, naturalist knowledge, and woodwork - while contributing to a collective project. The final map was designed to stay in the center, giving long-term visibility to their contributions. Supervisors also enriched the activity by sharing personal or professional knowledge of the park.

Facilitator's learnings:

- Create multiple opportunities for participants to express themselves in different ways (discussion, movement, making)
- Ensure their choices shape the final output, which reinforces ownership and motivation.

### How do you reinforce two-way dialogue among participants, facilitators, and experts?

Dialogue was encouraged through:

- Establishing a climate of kindness, respect, and listening.
- Embedding Q&A formats (live or via dictaphone recordings) to make participants' voices central.
- Creating small group moments where participants could explain discoveries to facilitators not present during explorations.
- Preparing experts in advance with participants' questions and supporting them in adopting a listening posture, encouraging horizontal dialogue rather than a lecture-style exchange.
- Emphasizing that everyone has a role: experts bring scientific knowledge, while participants share their own experiences, observations, and knowledge of the environment — valuing both forms of expertise equally
- Collaboration with supervisors, who co-designed sessions based on their trust relationship with participants.

## FACILITATOR'S NOTES

### **What made the activity work well in this context?**

- Variety of methods (exploration, construction, discussion) and tangible outcomes.
- Participants were the main decision-makers.
- Expert intervention, supported by pre-recorded questions and preparatory discussions.
- Strong involvement of EPIDE staff, who continued work between sessions (e.g., herbarium preparation).
- Multiple facilitators allowed parallel activities and smaller group work.
- Spacious environment and proximity of indoor/outdoor areas:
- Natural setting and spring season facilitated observations.

### **What difficulties emerged (e.g., emotional, relational, logistical)?**

- The heterogeneity of the participants previous knowledge: final choice of orienting more the map on nature and the park's species in general than on climate change challenges (but in accordance with their envies for the map).
- The lack of motivation of some of the participants (not the majority, however), a lot of noise sometimes (headcount dependent), the group's movements in the room (headcount dependent), focus issues, and a headcount higher than expected.
- Activities and collective moments duration possibly too long for some of them (vote, theater part...): an idea could be to do less or shorter tours during the theater activity.

### **Did any part of the format or facilitation style need to be adapted?**

- Have a contingency plan for bad weather.
- Adjust activity length, breaks, and group size to participants' profile.
- Ensure enough facilitators/supervisors to accompany all groups outside.
- Clarify maximum group size feasible per facilitator.

## Appendix

### **When this activity is suitable**

- When participants share a place (home, workplace) where biodiversity can be explored
- When the group of participants can remain stable between several sessions
- When relays or supervisors help to build the activity and have the trust of the participants
- When the facilitators themselves have or can easily mobilize people with scientific and technical skills
- When the final product can be seen by others and valued

### **When this activity is less suitable**

- The theater activity : when the participants are really introverted and involuntary to participate. When the room is exposed to outside views (the participants could be seen).
- An adaptation is needed in case of a participant with certain disabilities, in general and not only for this par : for the exploration (presence of concrete paths or not, duration adaptations?), the room layout, the experts intervention (type and level of content, depending on the type of disability), the professional contacted etc.
- When the group is way too large a too dissipated for the size of the room/the number of facilitators/the numbers of sessions/the size of the park.
- When the facilitators/supervisors don't have knowledge on construction, wooden working, soldering, or nature observation, or professional unavailable.
- When an expert intervention (or a facilitator with knowledge on the topic) isn't possible to guide and answer the questions.
- Adaptation when the group doesn't have any previous knowledge about the topic or doesn't

• speak any french (live translations needed).

- When the activity is conducted in another season than spring (winter, during a heatwave...)
- When there is no calm environment to record the sounds (with no cars, other noises).
- If a group isn't available for the activity or not for all of the 4 sessions (complicated when the group is changing). Adapted for a community center/neighborhood house or people in precarious situations.

### **Additional resources**

Hardware:

- Audio board, Adafruit Audio FX Sound Board:  
<https://learn.adafruit.com/adafruit-audio-fx-sound-board/copying-audio-files>
- Adafruit LiPo Battery Backpack: <https://www.adafruit.com/product/2124>

Software:

- Audacity – free software for managing and editing recorded sounds:  
<https://audacity.fr.softonic.com/telecharger>

Theatre exercises:

TIM Toolkit. A practical guide output of the Theatre in Mathematics project produced by SCT Centre, describing in detail many theatre exercise, part of the TIM methodology.

<https://old.theatreinmath.eu/outputs/tim-methodology/>

# III. Annexes

## Annex 1: Facilitator scripts for imagination exercise

These two scripts introduce the imagination exercise. The introduction / guideline prepares the audience about what to expect and how this imagination is meant to be done. The imagination script is a text to read slowly and guides the audience to imagine their own pictures.

### Introduction and Guideline for Participants

- We are about to close our eyes and we will all paint a picture about climate change in our minds.
- Your picture is not about showing everything you know about climate. It is about what you think about the topic, what you feel, or what you wish for. Simply what connects YOU to the topic of climate change or global warming.
- We will give you instructions for your image, but only use the instructions you like. If you don't like an instruction, just ignore it and continue thinking about your image.
- The picture can be realistic, but it can also be abstract or imaginary, or it can even be just a colour or a feeling. Several different pictures may also arise in your mind.
- There are no wrong pictures. Whatever you see is a good picture.
- You may also see pictures that trigger bad feelings. That's OK; negative feelings are also part of life. But this exercise is not meant to make you feel bad. If you notice that the exercise is not good for you, you can stop. If you feel fear, pain, or suffering, it is better to open your eyes again and try not to think about these images and wait until the others are finished.

### Guided Imagination Script (read slowly, with pauses to let people create their image)

Stand scattered around the room and shake yourselves briefly.  
Stand firmly on both feet (or sit down) and close your eyes.  
Be aware in what mindset you are here today.  
Be aware of the space you are standing in right now.  
Be aware of the people you are standing with in this space.  
Take three deep breaths in and out.

We are here today to see what your own images of climate change are.

Think about the words "climate change."  
What does the thought of climate change trigger in you?  
Fear / Hope / I don't care / Feelings of community / Worries / Changes  
Notice your feelings—what do you feel when you think about climate change?  
What triggers these feelings?  
Think of an image that matches your feelings about climate change.

Is your image from the past, the present, or the future?  
Is your image light or dark?  
What colours do you see?  
What time of day or season is it?  
What can you see in the foreground of the image,  
and what is in the background?  
Are there people in the image?

Is your image in motion?  
Are things or people changing?  
Where is something moving?  
Do the movements have a rhythm?

What do your senses perceive?  
Is it cold or warm?  
Humid or dry?  
What does your image smell like?

Do you hear noises, voices, or music?  
Is it loud or very quiet in your picture?  
Where do the noises or voices come from?

Which things are particularly important in the picture?  
are you only observing, or interacting with the picture?  
What connects you to your image?

Slowly bring yourself back to the present moment.  
Bring your picture with you.  
Keep your picture safe for yourself.

## Annex 2: Climate Perspectives

### Klima-Blickwinkel / Climate Perspectives

Discussion Cards for a Look at Vienna/Austria 2040 and possible CO<sub>2</sub> mitigation scenarios.

#### Usage Information for reader:

The original German version of the game cards “Klima-Blickwinkel” were used for the activities with the FutureFactory within the Project Come Together. To make the content of the activity understandable, the produced cards are presented in an english table version, which was produced with the help of an automatic translation tool.

For a better impression of the game cards, images of the original cards are attached below. To obtain the original, illustrated German files for printing, please contact the association ScienceCenter-Netzwerk.

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#### Klima-Blickwinkel

original German Version (2024)

Author: ScienceCenter-Netzwerk, Vienna, Austria

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contact: office@science-center-net.at

Verein  
**ScienceCenter**  
NETZWERK

Frontside of Card	Backside of Card
<b>DESIREABLE</b>	<b>LIKELY</b>
<b>UNDESIRED</b>	<b>UNLIKELY</b>
<p><b>Future Scenario 2040 – Car-Free Vienna</b></p> <p>In Vienna, cars are always shared and used by several people. Nobody owns a private car anymore. This means far fewer cars drive in the city. As a result, there is more space for public transport, emergency vehicles, delivery vehicles, and taxis. Where there used to be parking lots, there are now meadows and flowers.</p>	<p><b>Exciting to know:</b></p> <p>If parking spaces are turned into green spaces, we could save up to 870,000 tons of CO<sub>2</sub>. For comparison: a mid-sized car emits about 1,400 kg of CO<sub>2</sub> per year.</p> <p>More public transport ensuring that all places in Vienna are well connected could save up to 800,000 tons of CO<sub>2</sub>.</p> <p><b>For further discussion:</b> What is needed for such a transformation? How could the new green spaces be used? How would this affect quality of life?</p> <p><a href="https://ccca.ac.at/fileadmin/00_DokumenteHauptmenue/02_Klimawissen/RefNEKP/Bericht/NEKP_Wissenschaftliche_Bewertung_der_Massnahmen_der_Stellungnahmen_Februar2024.pdf">https://ccca.ac.at/fileadmin/00_DokumenteHauptmenue/02_Klimawissen/RefNEKP/Bericht/NEKP_Wissenschaftliche_Bewertung_der_Massnahmen_der_Stellungnahmen_Februar2024.pdf</a> (11.07.2024), p. 45</p>
<p><b>Future Scenario 2040 – Plant-Based Nutrition</b></p> <p>Most people in Austria no longer eat meat or any animal products. Vegetarian and vegan foods are cheaper than meat thanks to subsidies.</p>	<p><b>Exciting to know:</b></p> <p>Animal husbandry, especially keeping many animals in confined spaces, produces large amounts of climate-damaging greenhouse gases. With less factory farming, especially fewer cows, fewer greenhouse gases are emitted.</p> <p>Shorter transport routes lead to fewer CO<sub>2</sub> emissions. Healthy and sustainable nutrition (expansion of organic farming, focus on regional plant-based products) could save around 1,678 kilotons of CO<sub>2</sub> by 2040. Local products have shorter transport routes: fruit and vegetables can be harvested riper, are fresher, and taste better. Organic food is healthier because it does not contain harmful pesticides.</p> <p><b>For further discussion:</b> What does this mean for agriculture? Which foods are more sustainable than others? Which foods are healthier than others? What is needed so that more people can afford organic food?</p> <p><a href="https://ccca.ac.at/fileadmin/00_DokumenteHauptmenue/02_Klimawissen/RefNEKP/Bericht/NEKP_Wissenschaftliche_Bewertung_der_Massnahmen_der_Stellungnahmen_Februar2024.pdf">https://ccca.ac.at/fileadmin/00_DokumenteHauptmenue/02_Klimawissen/RefNEKP/Bericht/NEKP_Wissenschaftliche_Bewertung_der_Massnahmen_der_Stellungnahmen_Februar2024.pdf</a> (11.07.2024), pp. 119f.</p>
<p><b>Future Scenario 2040 – Public Transport for All</b></p> <p>Most people in Austria travel by train or other public transport. Ticket prices have been halved thanks to higher subsidies for public transport companies.</p>	<p><b>Exciting to know:</b></p> <p>More public transport could save about 750,000 tons of CO<sub>2</sub> if buses and trains run regularly and people are well connected.</p> <p>More public transport also means less noise, congestion, and air pollution. This also improves people's quality of life, especially in cities.</p> <p><b>For further discussion:</b> What do we need to ensure that everyone can use public transport?</p> <p><a href="https://ccca.ac.at/fileadmin/00_DokumenteHauptmenue/02_Klimawissen/RefNEKP/Bericht/NEKP_Wissenschaftliche_Bewertung_der_Massnahmen_der_Stellungnahmen_Februar2024.pdf">https://ccca.ac.at/fileadmin/00_DokumenteHauptmenue/02_Klimawissen/RefNEKP/Bericht/NEKP_Wissenschaftliche_Bewertung_der_Massnahmen_der_Stellungnahmen_Februar2024.pdf</a> (11.07.2024), pp. 44-46</p>
<p><b>Future Scenario 2040 – Efficient and Climate-Friendly Heating Systems</b></p> <p>Most people heat with renewable energy. Many buildings have been renovated and sustainable heating systems installed. Buildings are now better insulated, keeping rooms cooler in summer and requiring less heating in winter.</p>	<p><b>Exciting to know:</b></p> <p>Renovating all buildings and switching to sustainable heating systems (e.g., heat pumps) could save about 750 kt of CO<sub>2</sub> by 2030. Overall energy efficiency would increase.</p> <p>Lower rents in unsanctioned buildings would contribute to climate justice. Many people in Austria support this measure.</p> <p>Glantschnigg, Christian (2024). FORESIGHT Report. Climate Justice in Austria. <a href="https://www.momentum-institut.at/wp-content/uploads/2024/07/foresight-bericht-23142-momentum-klimagerechtigkeit-in-osterreich.pdf">https://www.momentum-institut.at/wp-content/uploads/2024/07/foresight-bericht-23142-momentum-klimagerechtigkeit-in-osterreich.pdf</a></p> <p><b>For further discussion:</b> What incentives could motivate landlords to switch to renewable energy more quickly? Who coordinates these conversion measures?</p>
<p><b>Future Scenario 2040 – Renewables Cheaper than Fossil Energy</b></p> <p>Fossil energy sources – oil, coal, and gas – have become very expensive due to high taxes. Renewable energy is much cheaper in comparison. People who live in rental apartments without renewable heating systems pay lower rents. Landlords bear the responsibility and cost for the conversion.</p>	<p><b>Exciting to know:</b></p> <p>Phasing out fossil gas could save around 11,000 kilotons of CO<sub>2</sub>. However, this requires sufficient storage capacity. The expansion of renewable energy should be coordinated at the federal level. Different alternative energy sources (wind, water, and solar energy) should be combined to generate enough electricity.</p> <p>Renovating all buildings and switching to sustainable heating systems (e.g., heat pumps) could save about 750,000 tons of CO<sub>2</sub> by 2030. Overall energy efficiency would increase.</p> <p><b>For further discussion:</b> What does this mean for electricity demand in Austria? Who is responsible for renovating buildings? What does this mean for tenants?</p> <p><a href="https://ccca.ac.at/fileadmin/00_DokumenteHauptmenue/02_Klimawissen/RefNEKP/Bericht/NEKP_Wissenschaftliche_Bewertung_der_Massnahmen_der_Stellungnahmen_Februar2024.pdf">https://ccca.ac.at/fileadmin/00_DokumenteHauptmenue/02_Klimawissen/RefNEKP/Bericht/NEKP_Wissenschaftliche_Bewertung_der_Massnahmen_der_Stellungnahmen_Februar2024.pdf</a> (11.07.2024), pp. 73, 95</p>

<p><b>Future Scenario 2040 – Slower, Safer Roads</b></p> <p>Speed limits on Austria’s roads are lower. On highways, 100 km/h applies, on rural roads 80 km/h, and in urban areas 30 km/h.</p>	<p><b>Exciting to know:</b></p> <p>Lower speed limits could save 1,500–1,800 kilotons of CO2. This measure could also increase road safety, as about 15% fewer accidents would occur.</p> <p>Lower speeds also mean less noise, particulate pollution, air pollution, and wildlife accidents.</p> <p><b>For further discussion:</b> How could this affect people’s health and well-being?</p> <p><a href="https://ccca.ac.at/fileadmin/00_DokumenteHauptmenue/02_Klimawissen/RefNEKP/Bericht/NEKP_Wissenschaftliche_Bewertung_der_Massnahmen_der_Stellungnahmen_Februar2024.pdf">https://ccca.ac.at/fileadmin/00_DokumenteHauptmenue/02_Klimawissen/RefNEKP/Bericht/NEKP_Wissenschaftliche_Bewertung_der_Massnahmen_der_Stellungnahmen_Februar2024.pdf</a> (11.07.2024), p. 43</p>
<p><b>Future Scenario 2040 – Green Cities</b></p> <p>Many surfaces that were covered with asphalt or concrete have been unsealed, i.e., the surface was removed and greened. When creating new housing, care is taken to use as little land as possible.</p>	<p><b>Exciting to know:</b></p> <p>Concrete and asphalt surfaces in cities cause the ground to heat up strongly. Green spaces, especially trees, cool the environment and help against urban heat.</p> <p>Soil provides a habitat for animals and plants. More soil therefore means more space for different species. In addition, unsealed soil can also store carbon. If the soil is sealed, the carbon is released as climate-damaging CO2 into the atmosphere and contributes to global warming.</p> <p><b>For further discussion:</b> How can sealed surfaces be unsealed and used sustainably? How can we build enough housing without sealing a lot of land?</p> <p><a href="https://ccca.ac.at/fileadmin/00_DokumenteHauptmenue/02_Klimawissen/RefNEKP/Bericht/NEKP_Wissenschaftliche_Bewertung_der_Massnahmen_der_Stellungnahmen_Februar2024.pdf">https://ccca.ac.at/fileadmin/00_DokumenteHauptmenue/02_Klimawissen/RefNEKP/Bericht/NEKP_Wissenschaftliche_Bewertung_der_Massnahmen_der_Stellungnahmen_Februar2024.pdf</a> (11.07.2024), p. 121</p>
<p><b>Future Scenario 2040 – Austria’s Nature Protected</b></p> <p>The number of nature reserves in Austria has increased fivefold. Mixed forests and moors are under special protection.</p>	<p><b>Exciting to know:</b></p> <p>Moors store large amounts of carbon. If moors are destroyed, this carbon is released as climate-damaging CO2 into the atmosphere and contributes to global warming. Special protection of moors is therefore particularly important for climate protection.</p> <p>Nature reserves help protect biodiversity. This diversity is important so that ecosystems function well and can adapt more easily to disturbances.</p> <p><b>For further discussion:</b> What does this mean for wildlife in these areas? Who is responsible for protecting these areas? What measures are needed for this?</p> <p><a href="https://ccca.ac.at/fileadmin/00_DokumenteHauptmenue/02_Klimawissen/RefNEKP/Bericht/NEKP_Wissenschaftliche_Bewertung_der_Massnahmen_der_Stellungnahmen_Februar2024.pdf">https://ccca.ac.at/fileadmin/00_DokumenteHauptmenue/02_Klimawissen/RefNEKP/Bericht/NEKP_Wissenschaftliche_Bewertung_der_Massnahmen_der_Stellungnahmen_Februar2024.pdf</a> (11.07.2024), p. 121</p>
<p><b>Future Scenario 2040 – No More Single-Use Plastic</b></p> <p>There is no longer any single-use plastic packaging. Austria has a comprehensive deposit system for packaging to ensure multiple use. It is mandatory to offer food with as little packaging as possible or to use sustainable packaging materials.</p>	<p><b>Exciting to know:</b></p> <p>Reusable packaging could save around 130 kilotons of CO2. A comprehensive deposit system would also mean less microplastic in the environment. In general, there would be less waste.</p> <p><b>For further discussion:</b> Which packaging material is particularly sustainable? What challenges could arise when introducing a deposit system?</p> <p><a href="https://ccca.ac.at/fileadmin/00_DokumenteHauptmenue/02_Klimawissen/RefNEKP/Bericht/NEKP_Wissenschaftliche_Bewertung_der_Massnahmen_der_Stellungnahmen_Februar2024.pdf">https://ccca.ac.at/fileadmin/00_DokumenteHauptmenue/02_Klimawissen/RefNEKP/Bericht/NEKP_Wissenschaftliche_Bewertung_der_Massnahmen_der_Stellungnahmen_Februar2024.pdf</a> (11.07.2024), p. 141</p>
<p><b>Future Scenario 2040 – Polluter Pays Principle</b></p> <p>CO2 is taxed progressively in Austria. People and companies that produce more CO2 also pay higher taxes.</p>	<p><b>Exciting to know:</b></p> <p>A higher CO2 price for those who cause more emissions ensures that the costs of the climate crisis are borne primarily by those responsible. This also provides an incentive to behave more climate-friendly.</p> <p>Such a tax reform also increases climate justice and protects those most affected by the crisis. Many people in Austria support this measure.</p> <p><b>For further discussion:</b> How could this help create fairness between poorer and richer people? What incentives could be given to companies to produce less CO2?</p> <p><a href="https://ccca.ac.at/fileadmin/00_DokumenteHauptmenue/02_Klimawissen/RefNEKP/Bericht/NEKP_Wissenschaftliche_Bewertung_der_Massnahmen_der_Stellungnahmen_Februar2024.pdf">https://ccca.ac.at/fileadmin/00_DokumenteHauptmenue/02_Klimawissen/RefNEKP/Bericht/NEKP_Wissenschaftliche_Bewertung_der_Massnahmen_der_Stellungnahmen_Februar2024.pdf</a> (11.07.2024), pp. 152, 153</p> <p>Glantschnigg, Christian (2024). FORESIGHT Report. Climate Justice in Austria. <a href="https://www.momentum-institut.at/wp-content/uploads/2024/07/foresight-bericht-23142-momentum-klimagerechtigkeit-in-osterreich.pdf">https://www.momentum-institut.at/wp-content/uploads/2024/07/foresight-bericht-23142-momentum-klimagerechtigkeit-in-osterreich.pdf</a></p>



Keine Autos mehr in der Stadt



### Zum Weiterdenken...

Wenn Parkplätzen zu Wiesen gemacht werden, könnten wir bis zu 870.000 Tonnen CO2 einsparen. Zum Vergleich: Ein Mittelklassewagen stößt etwa 1400kg CO2 pro Jahr aus. Mehr öffentliche Verkehrsmittel, die dafür sorgen, dass alle Orte in Wien gut angebunden sind, könnten bis zu 800.000 Tonnen CO2 einsparen.

**Fragen zum Weiterdiskutieren:**  
Was braucht es für so eine Umgestaltung?  
Wofür könnte man die neuen Grünflächen nutzen?  
Wie wirkt sich das auf die Lebensqualität aus?

Quelle: [https://ccca.ac.at/fileadmin/00\\_Dokumente/Hauptreferat/02\\_Klimawissen/RefNEKP/Bericht/NEKP\\_Wissenschaftliche\\_Bewertung\\_der\\_Maßnahmen\\_der\\_Stellungnahmen\\_Februar2024.pdf](https://ccca.ac.at/fileadmin/00_Dokumente/Hauptreferat/02_Klimawissen/RefNEKP/Bericht/NEKP_Wissenschaftliche_Bewertung_der_Maßnahmen_der_Stellungnahmen_Februar2024.pdf), S. 45



Nur mehr vegetarische und vegane Supermärkte



### Zum Weiterdenken...

Tierhaltung, vor allem viele Tieren auf engem Raum, produziert große Mengen klimaschädlicher Treibhausgase. Durch weniger Massentierhaltung, besonders von Kühen, werden weniger Treibhausgase ausgestoßen. Kürzere Transportwege führen zu weniger CO2-Emissionen. Gesunde und nachhaltige Ernährung (Ausbau von BIO-Landwirtschaft, Fokus auf regionale pflanzliche Produkte) könnte bis 2040 ca. 1678 Kilotonnen CO2 einsparen. Lokale Produkte haben kürzere Transportwege: Obst und Gemüse kann reifer geerntet werden, ist frischer und schmecken dadurch besser. BIO-Lebensmittel sind gesünder, weil sie keine schädlichen Pestizide enthalten.

**Fragen zum Weiterdiskutieren:**  
Was bedeutet das für die Landwirtschaft?  
Welche Lebensmittel sind nachhaltiger als andere?  
Welche Lebensmittel sind gesünder als andere?  
Was braucht es, damit mit sich mehr Menschen BIO-Lebensmittel leisten können?

Quelle: [https://ccca.ac.at/fileadmin/00\\_Dokumente/Hauptreferat/02\\_Klimawissen/RefNEKP/Bericht/NEKP\\_Wissenschaftliche\\_Bewertung\\_der\\_Maßnahmen\\_der\\_Stellungnahmen\\_Februar2024.pdf](https://ccca.ac.at/fileadmin/00_Dokumente/Hauptreferat/02_Klimawissen/RefNEKP/Bericht/NEKP_Wissenschaftliche_Bewertung_der_Maßnahmen_der_Stellungnahmen_Februar2024.pdf), S. 119f.





Mehr Naturschutzgebiete, v.a. bei Mooren und Mischwäldern



## Zum Weiterdenken...

Moore speichern große Mengen an Kohlenstoff. Werden Moore zerstört gelangt dieser Kohlenstoff als klimaschädliches Treibhaus CO<sub>2</sub> in die Lufthülle der Erde und trägt zur Klimaerwärmung bei. Ein besonderer Schutz von Mooren ist daher besonders wichtig für den Klimaschutz. Naturschutzgebiete helfen die Vielfalt an Pflanzen und Tieren zu schützen. Diese Vielfalt ist wichtig für damit Ökosysteme gut funktionieren und sich leichter an Störungen anpassen können.

### Fragen zum Weiterdiskutieren:

Was bedeutet das für die Tierwelt in diesen Gebieten?  
Wer ist für den Schutz dieser Gebiete verantwortlich?  
Welche Maßnahmen brauchen wir dafür?

Quelle: [https://ccca.ac.at/fileadmin/00\\_Dokumente/Hauptmenue/02\\_Klimawissen/BeNEKP/Bericht/NEKP\\_Wissenschaftliche\\_Bewertung\\_der\\_Massnahmen\\_der\\_Stellnahmen\\_Februar2024.pdf](https://ccca.ac.at/fileadmin/00_Dokumente/Hauptmenue/02_Klimawissen/BeNEKP/Bericht/NEKP_Wissenschaftliche_Bewertung_der_Massnahmen_der_Stellnahmen_Februar2024.pdf) (11.07.2024), S. 121.



nur mehr nachhaltige Verpackungen, Pfand-System für Flaschen und Dosen



## Zum Weiterdenken...

Verpackungen, die mehrere Male verwendet werden, können rund 130 Kilotonnen CO<sub>2</sub> einsparen. Durch ein umfangreiches Pfandsystem würde außerdem weniger Mikroplastik in die Umwelt gelangen. Generell gäbe es weniger Müll.

### Fragen zum Weiterdiskutieren:

Welches Verpackungsmaterial ist besonders nachhaltig?  
Welche Herausforderungen könnte die Einführung von einem Pfand-System mit sich bringen?

Quelle: [https://ccca.ac.at/fileadmin/00\\_Dokumente/Hauptmenue/02\\_Klimawissen/BeNEKP/Bericht/NEKP\\_Wissenschaftliche\\_Bewertung\\_der\\_Massnahmen\\_der\\_Stellnahmen\\_Februar2024.pdf](https://ccca.ac.at/fileadmin/00_Dokumente/Hauptmenue/02_Klimawissen/BeNEKP/Bericht/NEKP_Wissenschaftliche_Bewertung_der_Massnahmen_der_Stellnahmen_Februar2024.pdf) (11.07.2024), S. 141.



gestaffelte CO<sub>2</sub> Steuer: hoher CO<sub>2</sub>-Ausstoß bedeutet hohe Steuern



## Zum Weiterdenken...

Ein höherer CO<sub>2</sub>-Preis für diejenigen die mehr Emissionen verursachen würde dazu führen, dass jene die Kosten für die Klimakrise tragen die auch hauptsächlich dafür verantwortlich sind. Das bietet auch einen Anreiz dafür, sich klimafreundlicher zu verhalten. So eine Steuerreform erhöht außerdem die Klimagerechtigkeit und schont diejenigen, die besonders von der Krise betroffen sind. Viele Menschen in Österreich befürworten diese Maßnahme.

### Fragen zum Weiterdiskutieren:

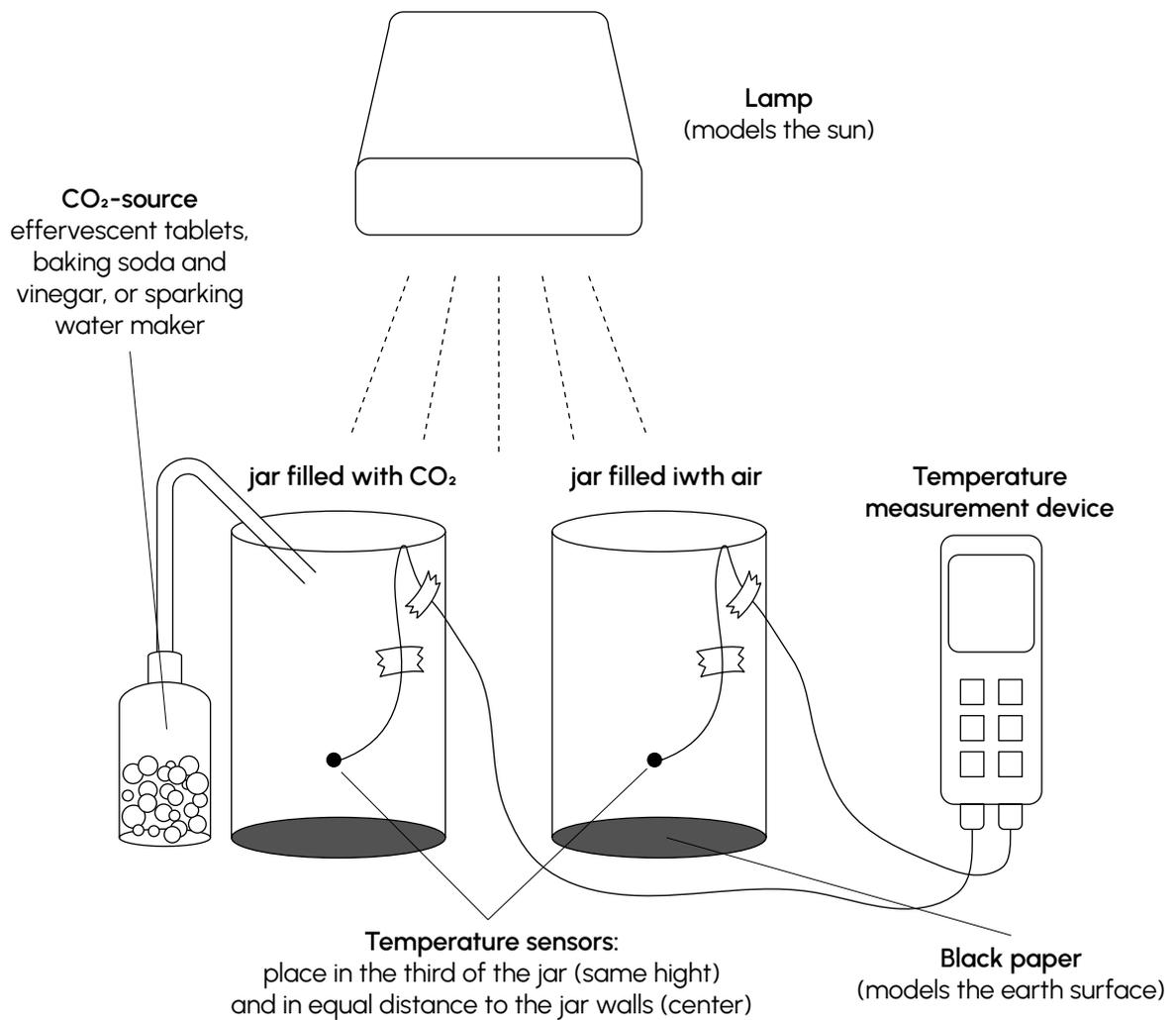
Wie könnte das helfen, Gerechtigkeit zwischen ärmeren und reicheren Menschen zu schaffen? Welche Anreize könnte es für Unternehmen geben, damit sie weniger CO<sub>2</sub> produzieren?

Quelle: [https://ccca.ac.at/fileadmin/00\\_Dokumente/Hauptmenue/02\\_Klimawissen/BeNEKP/Bericht/NEKP\\_Wissenschaftliche\\_Bewertung\\_der\\_Massnahmen\\_der\\_Stellnahmen\\_Februar2024.pdf](https://ccca.ac.at/fileadmin/00_Dokumente/Hauptmenue/02_Klimawissen/BeNEKP/Bericht/NEKP_Wissenschaftliche_Bewertung_der_Massnahmen_der_Stellnahmen_Februar2024.pdf) S. 43  
Glantschnigg, Christian (2024). FORESIGHT Bericht. Klimagerechtigkeit in Österreich. <https://www.momentum-institut.at/wp-content/uploads/2024/07/foresight-bericht-23142-momentum-klimagerechtigkeit-in-osterreich.pdf>



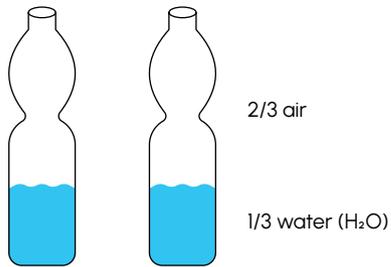
## Annex 3: Greenhouse effect experiment

A sketch for the experiment set up

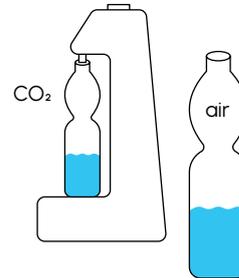


## Annex 4: Ocean acidification experiment

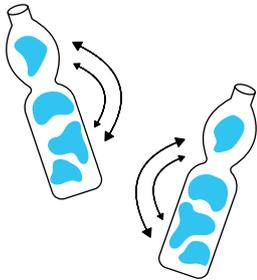
- 1 Fill 2 plast bottle 1/3 with water



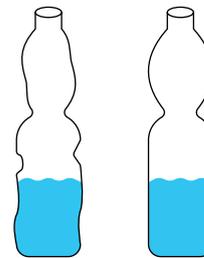
- 2 Use a Sodastream (or other CO<sub>2</sub>-source) to fill Cabondioxide in one of the bottles



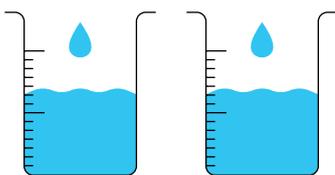
- 3 Close both bottles tightly and shake then very well



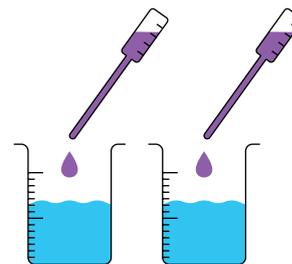
- 4 Compare the shape of bottles. Can you recognise a change?



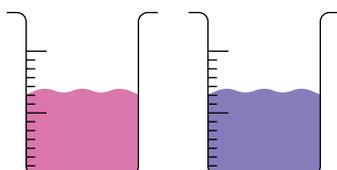
- 5 Put some water from each bottle into a small beaker or jar



- 6 Add a little red cabbage juice to the water (use a pipette or a spoon)



- 7 Can you observe a difference in color? What causes the color change? Which acid might have formed?



## Annex 5: SPK Theatre Workshop

### PART 1: Warm up (~10 min.)

The facilitator first explains the exercise: As a warm-up, the group is asked to walk around the room at a relaxed pace. Occasionally, the facilitator calls out a keyword and claps loudly. The keyword refers to a walking scenario, e.g., 'ice,' 'hot sand,' or 'storm.' As soon as the keyword is called, the participants change their gait to match the scenario.

### PART 2: Theater sculpture exercise (~20 min.)

The aim is creatively bringing up perspectives on the topic of human-nature-relations in 3 rounds of making theater sculptures. The principle for the works/sentences is to go from general to the topic, and from specific word to abstract concepts.

Facilitator explains how the exercise works:

- We stand in a circle and turn around so that we are facing each other backwards.
- I say a word or sentence and I count 3,2,1. You turn around and freeze in a position that you associate with what I said.
- Just do what you feel like, there is no right or wrong.
- Are there any questions? Otherwise, we will start.

We tested the activity with the following words/sentences (but it can be adapted depending on the group of participants and the theme of the activity) for an easy entry:

- 1st round "no words, just sculptures" (5 min): the facilitator gives the following keywords:
  - the neighbourhood you live in
  - summer
  - Park
- 2nd round "tap to explain in 1 word": the facilitator taps on the shoulder of the participants and asks them for 1 word to explain their sculpture
  - How do you feel when you are outside in nature?
  - How do you feel about nature in cities?
  - How do you feel about human-nature-relations?
- 3rd round "group formation, discuss and share": the facilitator asks the participants to look around to find people who are doing similar things. Now, they have 2 minutes to discuss their sculpture. Afterwards, the discussion is summarized for the whole group.
  - What is inspiring for you from the indigenous perception of human-nature-relations?
  - What do you imagine urban farming will look like in the future / would you like it to be?
  - What would you do to protect nature?
  - How do you feel about climate change?

### PART 3: Bas-Relief

**First Statues on the wall/picture** (bas-reliefs) about living in the city from different perspectives participants can think of: human, wild animals, insects, plants, nature elements like rivers, forests, in cold winter or hot summer, e.g. in densely or less densely populated neighborhoods – **10 minutes**

- Participants stand on one side of the room, as spectators. On the other side there is an empty wall. One of the participants positions her/himself near the wall and creates a statue with her/his body. One by one, 3 to 4 participants are invited to quickly join the first one, one after the other, and create new statues that will complete the scene.
- The facilitator explains the principle. If needed (s)he can give an example by doing a statue

her-himself: You will create a collective sculpture with your bodies. One by one, you're going to walk onto the stage and freeze like a statue. Your statue will represent what is it, for you, to live in this neighborhood. You can use your body, face expression and gaze to express emotions. There is no right or wrong answer.

- Observations: This exercise can involve physical contact among the participants.
- Once the bas-relief is finished the statues keep their position and the facilitator will ask the spectators to find the title of the painting and then describe it as a guide in a museum: Imagine that this bas-relief is a famous work of art in a museum. What do you think its title could be?
- One possibility is to ask to people doing statues, what they represent or if they have complementary opinion about the title: One of you (spectators) is going to become a guide in a museum. Come, choose a title and describe the bas relief as if it was a famous art piece in a museum.
- After a couple of suggestions the facilitator asked the participants in the picture to tell a sentence about their pose (this part is not necessary as it can influence the description of the picture that will follow too much).
- After the description: Does any of the visitors have any questions about the art work?  
-> Participants who created the statues are invited to answer the questions

**Second Statues on the wall/picture** (bas-reliefs) about **desirable and possible/feasible/realistic** future in 10 years' time, e.g. the desirable and possible neighborhoods of the participants in 10 years from now, thanks to (not only but also) the participants actions and engagement.

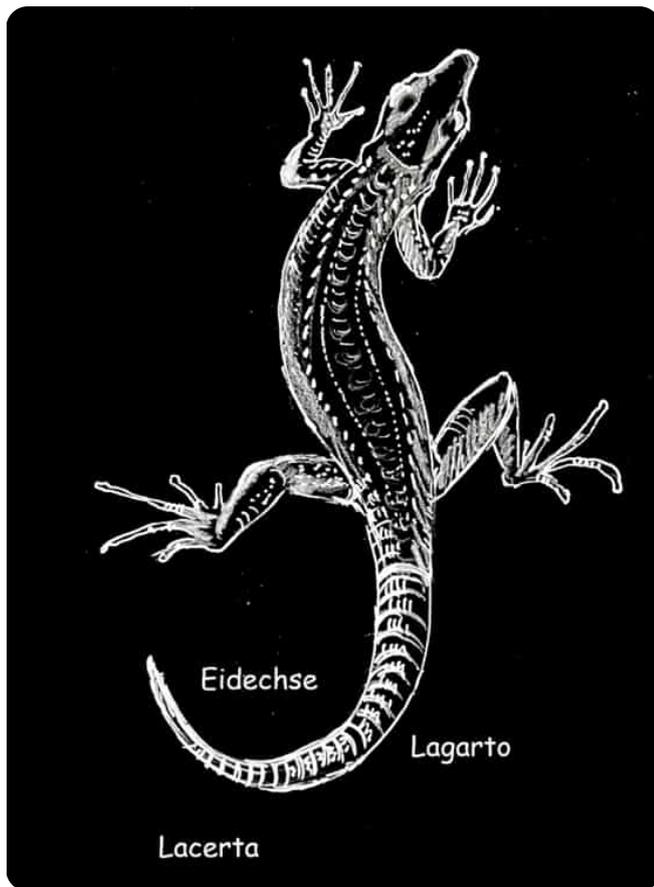
- The basic sequence repeats itself as in the first statues/picture/scenario

Note: for this kind of exercise, we wanted to open up imaginations about how a positive future can look like in a realistic way but in the next step also what participants really wish for which goes beyond the status they can imagine as realistic right now. Thus, we chose the time span of 10 years.

**Third Statues on the wall/picture** (bas-reliefs) about **primarily desirable** futures in 10 years' time, **regardless of how realistic their implementation would be.**

For example: the desirable neighbourhoods of the participants in 10 years from now, thanks to (not only but also) the participants actions and engagement. The basic sequence repeats itself as in the first stat

## Annex 6: Animal profile cards



**Super Regeneration – Super Legs – Super Sounds**

**Gecko / Lizard**

**Age:** 8–20 years

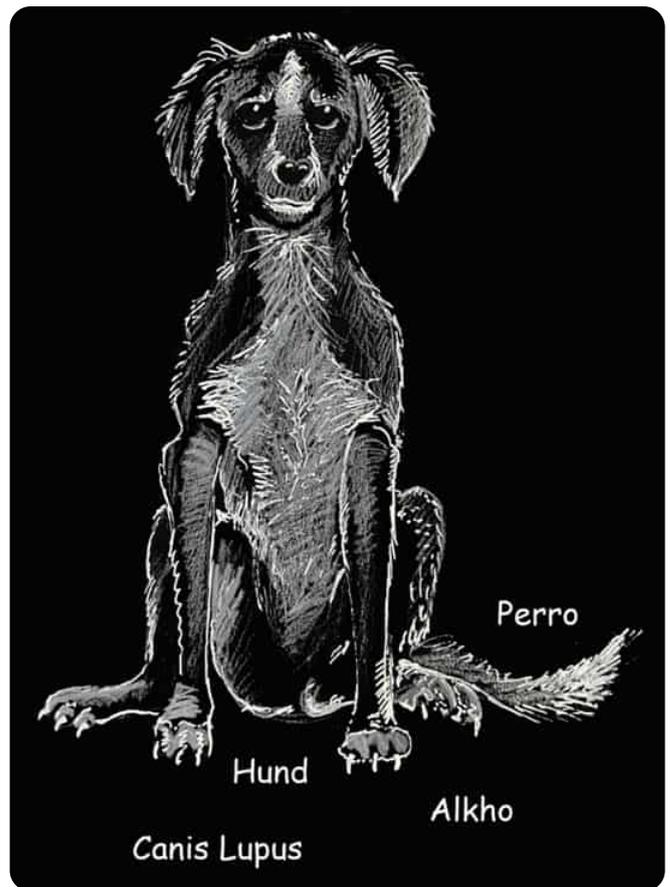
**Size:** 2.5 to 40 cm including the tail

**Enemies:** Birds of prey, snakes and predators

A gecko eats snails, insects and spiders. Geckos are cold-blooded.

Their body temperature depends on their environment. These shy reptiles have lived on Earth for at least 100 million years.

- When threatened, it can drop its tail, which grows back, but it won't be as long as before.
- With its feet, it can climb vertically up glass and even walk upside down on ceilings. Tiny hairs on the toes help it do that.
- Geckos communicate with sounds such as chirping, barking or clicking.



**Super Friend – Super Nose – Super Hearing**

**Dog**

**Age:** 10–13 years (or older)

**Size:** 18 to 86 cm shoulder height

A dog eats meat, roots, leaves, grasses and roots. Wolves became accustomed to humans about 10,000 years ago, and from this the domestic dog developed.

- A dog has an exceptionally good nose. It can have up to 300 million scent cells, which is why dogs are often used as tracking dogs. They can smell objects or people even from a distance of 20 km.
- A dog has excellent hearing. It hears lower, and especially much higher, tones than humans. Your dog can hear you even from 1 km away.
- A dog is one of the best friends of humans and helps them.

# Annex 7: Instructions of the performative mapping

SPK6\_PerformativeMapping-ByWalmeriRibeiro.pdf

## Performative Mapping

Artistic proposal by Walmeri Ribeiro

### Introduction

By discussing the effects of colonization, the over-exploitation of natural resources, the climate crisis, and the need to change contemporary modes of living, this performative practice proposes different ways of coexistence and co-creation between human and more-than-human entities, strengthening ethical-political and participatory approaches to making art. Based on the methodology developed in the projects of the Sensitive Territories Platform, some important questions guide this proposal:

1. How can we re-sensitize our bodies?
2. How can we create ways of living (not just surviving), of imagining and dreaming, while living amidst various crises?
3. How can we create a bodily engagement with the environment, making our bodies porous?
4. How does this practice present us with sensitive aspects of the territories, encouraging the emergence of questions that can only arise through embodied experience?
5. How can this practice connect us with our places, countries, and memories, creating a bond with where we are living now?

At this moment, I would like to invite you to carry out this performative experience in a place where you want to create connections in the city where you are currently living.

### About the concept of “Porous Body”

A porous body is a way of being in the world. It is not an everyday, automatized body, nor is it simply a body in motion or transition. Rather, it is a body that seeks another self—a self that builds, connects, and creates zones of contamination and contagion without borders, without hierarchies between species. A porous body is an available body, permeable and in a state of full attention. It is a body capable of feeling, listening to, and absorbing (becoming body) micro-movements, micro-sounds, tactilities, and temporalities, as well as macro-movements and the larger context in which it exists. The porous body is, therefore, a state of being and acting in the world—a state of being in a poetics of otherness and the construction of other worlds. (RIBEIRO, 2021, p.57)

## Performative Program

Take a deep breath.

Breathe in.

Breathe out.

Repeat three times.

Close your eyes.

Breathe for a few minutes.

Breathe in.

Breathe out.

When I breathe in, I open up space in my body...

When I breathe out, I realize that I am simply here and now...

This is a practice of being.

...

Notice the movement of your body.

Keep this movement going.

It will become deeper and slower.

Keep breathing for five minutes.

...

Open your eyes slowly and with care.

In silence, we will begin to walk.

Keep your breath active.

As you walk, focus on the movement of the air in your body.

Breathe in.

Breathe out.

...

Walk slowly.

As you walk, simply observe:

The things, the sounds, the smells, the movements—the little things.

Observe, feel, listen... take your time.

We are now making connections through movement.

Observe.

Feel.

Breathe.

Walk.

...

We will stop in three places along the river. I will be in front—when I stop, please stop and form a line.

In silence...

< First Stop >

Keep breathing and gaze into the water for a few minutes.

Breathe in.

Breathe out.

...

Walk again.

Hold your breath, hold your sensations—

Just stay here and now.

We are building a community, together.

Human and more-than-human beings living here and now.

< Second Stop >

Keep breathing and observe the water and the landscape for a few minutes.

First, take in the entire landscape with an open gaze (5 minutes).

Then, focus on just one point in the landscape.

Your body will find another body—just stay connected.

Memories from your home, your country, your river, your sea, your familiar landscapes and waters may arise (or not).

Just receive them and carry them with you.

...

Walk again.

Hold your breath, your sensations, your memories, your emotions—your connections.

< Third Stop >

Now we will enter this space. Take your time.

We'll do this action in pairs.

Each pair may choose one mat, in silence.

One person will lie down on the mat; the other may sit or stand.

In this action, we will share our memories.

The person standing will tell their partner their memories, images, sensations—anything they wish to share.

The person lying down simply receives.

Then, we will switch roles.

...

Now, together, we will translate our memories, personal images, sensations, and emotions onto this large sheet of paper.

You may draw, write, paint—express yourself freely in connection with this territory and your personal territory, your body-territory.

This is a practice of living in the present moment.

This is a practice of building body-territories and territory-bodies.

This is a practice of feeling, hearing, smelling, and creating a new way of connecting your body to the territory's body.

This is a practice of transforming our numb and desensitized bodies into sensitive ones—

Capable of noticing more-than-human actions, voices, and presences.

Thank you for being here.

With love,

**Walmeri**

## Annex 8: Team Plant

### TEAM PLANT – Alternative creative activity

#### Introduction

This action strengthens group thoughts. Participants should consider the diversity of wild herbs and promote creativity.

#### Process

The participants form four to eight small groups. The group finding can be done with themes such as different plants or various leaf types of the plants. Each team receives a sheet of paper and a pencil to create a collage from their group. The task is to create a poster that highlights the diversity of the plants. The participants are asked to consider the following questions: What do the plants look like? Where do they grow? How do they smell? The participants have 30 minutes to complete this task. Afterwards, each team presents their poster to the others. The other teams try to guess which plant is being described. Then, the presenting team reveals the name of the plant. At the end, all teams lay out their posters next to each other, creating a "Team Plant" and noting down the names of the plants on the paper.

A signal marks the start of the writing process for all groups. Each team begins with the description of their plant. The other participants listen and try to guess the names. Then, the next team presents their plant. This continues until all teams have presented their plants. The team that can identify the most plants by their descriptions wins.

## Annex 9: Tierarten\_Superkräfte



**Ovis aries**

**вересові  
вівці**

**Skudde / Heideschaf**

**Oveja de  
brezo**



### **Skudde / Heideschaf**

Alter: 12 – 15 Jahre

Größe: 55 – 60 cm Höhe der Schulter

Feinde: Wolf, Hunde

Eine Skudde frisst Wiesenkräuter, Gräser und Gestrüpp. Skudden sind sehr klein und scheu. Sie gehören zu den ältesten Hausschafsrassen und werden gerne für die Landschaftspflege eingesetzt.

- Skudden fühlen sich im Sommer und Winter im Freien wohl. Sie kommen mit extremen Wetterbedingungen und mageren Standorten sehr gut zurecht.
- Mit ihrer gespaltenen, beweglichen Oberlippe können Skudden sehr gut die Pflanzenteile auswählen, die sie besonders gern essen möchten.
- Skudden gehören wie alle Schafe zu den Wiederkäuern und haben vier Mägen in ihrem Verdauungssystem. Dadurch können sie sehr viele Nährstoffe aus den Pflanzen aufnehmen.



**Vulpes vulpes**

**руда лисиця**

**Rotfuchs**

**Zorro rojo**



## **Rotfuchs**

Alter: 6 – 12 Jahre

Größe: 40 cm Höhe der Schulter

Feinde: Mensch, Wolf, Adler

Der Rotfuchs gehört zur Familie der Hunde und ist der weltweit verbreitetste Wildhund. Er ist ein Allesfresser und Überlebenskünstler. In Berlin leben schätzungsweise bis zu 3.000 Rotfüchse.

- Seine Beute spürt der Rotfuchs vor allem mit seinem hervorragenden Geruchssinn und mit seinem Gehör auf. Seine Ohren kann er in fast alle Richtungen drehen.
- Er kann bis zu fünf Meter weit und zwei Meter hoch springen und bis zu 50 Kilometer pro Stunde schnell laufen.
- Der Rotfuchs ist sehr anpassungsfähig und kommt mit unterschiedlichen Lebensbedingungen zurecht. Er kann in Wäldern oder halboffenen Landschaften, aber auch in Städten und Siedlungsgebieten leben.



**Falco  
tinnunculus**

**пустельга**

**Turmfalke**

**Cernícalo**



## Turmfalke

Alter: 15 – 18 Jahre

Größe: 31 – 37 cm

Feinde: Uhu, Krähe, Marder, Mensch

Der Turmfalke ist ein recht auffälliger, mittelgroßer Greifvogel. Er nistet gerne in von Menschen geprägten Gebieten, z.B. auf Kirchtürmen. Er ist der häufigste Falke in Europa.

- Die Augen des Turmfalken sind außergewöhnlich gut. Sie können besonders scharf und schnell sehen und so auch fliegende Insekten aus großer Entfernung wahrnehmen. Die Netzhaut der Augen hat spezielle Sensoren, mit denen er ultraviolettes Licht erkennen kann. So kann er den frischen Urin von Mäusen orten und seine Beute gezielt jagen.
- Er ist für seinen Rüttelflug bekannt. Dabei nutzt er kräftige Flügelschläge, um mehrere Meter in der Luft zu „stehen“ und nach Beute Ausschau zu halten und sich dann darauf herabzustürzen.



**Epeolus cruciger**

**Хіт повстяна  
бджола**

**Heide-Filzbiene**

**Abeja de fieltro  
de brezo**



## Heide-Filzbiene

Alter: wenige Wochen bis ein Jahr  
Größe: 6 – 8 mm  
Feinde: Parasiten, Insektenfresser, Mensch

Die Heide-Filzbiene lebt in sandigen Gebieten und auf Heideflächen. Als Futterquelle liebt sie den Nektar von Heidekraut, Berg-Sandglöckchen und Hasenklee.

- Die Heide-Filzbiene gehört zu den sogenannten Kuckucksbienen. Sie baut kein eigenes Nest, sondern legt die Eier in die fertigen Brutkammern der Heidekraut-Seidenbiene. Die Larven der Filzbiene entwickeln sich schneller und fressen manchmal auch die Larven der Seidenbiene auf.
- Wenn eine Heide-Filzbiene schläft, beißt sie sich mit ihren Oberkiefern an einer Pflanze fest und hängt senkrecht oder waagrecht daran.



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**Macroglossum  
stellatarum**

**колібри яструбина  
моль**

**Taubenschwänzchen**

**Polilla halcón  
colibrí**



## Taubenschwänzchen

Alter: 3 – 4 Monate

Größe: 36 – 50 mm Flügelspannweite

Feinde: Spinnen, Insektenfresser, Parasiten, Mensch

Das Taubenschwänzchen ist eigentlich ein nachtaktiver Falter, ist aber auch tagsüber auf Nahrungssuche zu finden. Es lebt in offenen Geländen mit genügend nektarreichen Blüten.

- Das Taubenschwänzchen wird auch Kolibrifalter genannt, weil es genau wie der Vogel durch den sogenannten Schwirrflug wie ein Hubschrauber in der Luft stehen kann. Außerdem kann es in 14 Tagen bis zu 3000 Kilometer weit fliegen.
- Mit den Fühlern kann das Taubenschwänzchen riechen und sich orientieren. Die Augen können ultraviolettes Licht sehen und mit den Füßen können sie schmecken.
- Der Saugrüssel des Taubenschwänzchens ist gut 3 Zentimeter lang und kann so den Nektar aus tiefen Blüten saugen. Außerdem hat es dadurch genug Abstand zur Blüte und ist so vor Fressfeinden wie der Krabbenspinne geschützt.



**Thomisus onustus**

**квітковий краб-павук**

**Blumenkrabbenspinne**

**Araña cangrejo de flores**



## Blumenkrabbenspinne

Alter: 1 – 2 Monate

Größe: 7,0–9,8 mm (Weibchen), 2,0–3,6 mm (Männchen)

Feinde: Insektenfresser, Vögel

Die Blumenkrabbenspinne zählt zu den großen Krabbenspinnen, was jedoch nur für die Weibchen gilt. Diese sind deutlich größer als die Männchen. Sie lieben warme und trockene Standorte.

- Die Weibchen der Blumenkrabbenspinne können ihre Körperfarbe verändern und an die Blütenfarbe anpassen. Das ist eine perfekte Tarnung, um ihrer Beute aufzulauern.
- Ihre Beute besteht aus Insekten, die Blüten aufsuchen und oft viel größer sind als die Spinne selbst. Blitzschnell kann sie die Beute mit ihren starken Vorderbeinen schnappen und braucht daher kein Netz zum Fangen.

## Annex 10: The speaking world

### Il mondo che parla

**Primo stop:** "Ciao, io sono il Mondo, sistemi che si intrecciano. Acqua che cambia forma, aria che attraversa, calore che si sposta senza chiedere permesso. Non ho un centro e non ho un capo: funziono perché ogni parte si appoggia all'altra. Non sempre armonia, ma sempre relazione. Ma non si deve tirare troppo la corda. È complicato parlare con voi, così, faccia a faccia. Di solito correte, sempre di fretta, sempre altrove. Io, invece, resto. Vi osservo e vi vedo, siete stretti, in tanti, in uno spazio piccolissimo... e già vi guardate male, pronti a salvarvi a scapito di qualcun altro. Di solito fate tutto voi, parlate, correte, costruite... e io resto qui, sotto i vostri piedi, a farvi da tappeto. Senza lode, senza tregua. Certo, dite di amarmi, di rispettarvi, fate anche una magnifica "Giornata della Terra", una volta all'anno, con tanto di hashtag. Poi, il giorno dopo, mi riempite di plastica come fosse un biglietto d'amore".

**Secondo stop:** "Non vi rendete conto di quanto pesi il vostro passo. Ma va bene, non sono qui per lamentarmi. Non sono da scenate, anche se, ogni tanto, un terremoto, un'alluvione, uno tsunami mi scappano. Eppure... io vi ho dato tutto. Montagne per imparare a guardare in alto, mari per imparare a riflettere, alberi per educarvi alla pazienza. E voi? Avete imparato bene... a tagliare, a scavare, a prendere sempre di più.....ma non è la rabbia che mi consuma, è la febbre. Una febbre lenta, che scioglie i miei ghiacci come lacrime.

Una tosse di fumo e plastica che mi riempie i polmoni di città.

Ogni giorno mi stringo un po' di più, come un corpo che non trova aria.

E voi... voi mi guardate e dite: "Povero Mondo, si sta ammalando."

Come se non foste stati voi i medici distratti, quelli che prescrivono parole invece di cure. Ma non voglio accusarvi. No. Quello che fate non mi offende, non mi irrita. Gli insulti non mi toccano, le carezze non mi lusingano. Io rispondo ai movimenti, non alle intenzioni.

Non servono muri, ma mani. Non serve paura, ma presenza. Non vi chiedo di salvarmi, vi chiedo di salvarvi con me. Perché io... io posso anche sopravvivere senza di voi, ma voi, senza di me, sareste solo un'eco nel vento".

**Terzo stop:** "Io vi ho insegnato tutto quello che so: il respiro del vento, la pazienza delle stagioni, la danza dell'acqua. Vi ho mostrato la bellezza e continuo a mostrarvela nonostante le vostre colate di cemento. Ma credo ancora in voi, sì, in voi. Con tutte le vostre contraddizioni, le vostre luci accese di notte, i vostri sogni stropicciati dai rumori. Mi interessa capire come vi muovete tra di voi. Il modo Perché il modo in cui vi cercate o vi dimenticate arriva fino a me come un cambio di pressione. Le vostre relazioni sono onde: piccole, grandi, disordinate, regolari. A volte si incontrano, a volte si cancellano. Non giudico nessuna di queste forme. Le registro. Le includo nel mio funzionamento. In fondo, io sono reti che si intrecciano: radici, correnti, migrazioni, pensieri. Quando una parte cambia ritmo, tutta la rete si assesta, anche se non si vede subito. Non è troppo tardi, non vi parlo per chiedervi salvezza, ma per ricordarvi che fate parte della mia rete, così come io faccio parte della vostra. Noi siamo relazione, ogni passo, anche il più piccolo, origina una mia trasformazione, ma finché respirate, io respiro, finché sognate io continuerò a fiorire. Io sono la Terra, e vi sto ancora aspettando".

## The speaking world

**First stop:** "Hello. I am the World.

Systems woven together.

Water that changes shape, air that moves through everything, heat that travels without asking permission.

I have no centre and no leader: I work because every part leans on the others.

Not always harmony, but always relation.

But you shouldn't pull the rope too hard.

It's complicated to talk to you like this, face to face.

You're always running, always in a hurry, always elsewhere.

I, instead, stay.

I watch you.

I see you crowded together in the smallest space...

and already looking at each other with suspicion, ready to save yourselves at someone else's expense.

Usually you take over everything: you speak, you rush, you build...

and I remain here, under your feet, your floor, your background.

No praise, no rest.

Of course, you say you love me, that you respect me.

You even give me a magnificent "Earth Day" once a year, hashtag included.

And the next day, you fill me with plastic as if it were a love letter."

**Second stop:** "You don't realise how heavy your step is.

But it's alright; I'm not here to complain.

I'm not one for scenes, even if sometimes a quake, a flood, a tsunami slips out of me.

And yet... I gave you everything.

Mountains to learn how to look upward,

seas to learn how to reflect,

trees to teach you patience.

And you?

You learned quickly... how to cut, how to dig, how to take more and more.

But it isn't anger that consumes me.

It's fever.

A slow fever that melts my ice like tears.

A cough of smoke and plastic filling the lungs of my cities.

Every day I contract a little more, like a body that can't find air.

And you... you look at me and say,

'Poor World, it's getting sick.'

As if you weren't the distracted doctors,

the ones who prescribe words instead of cures.

But I don't want to accuse you.

No.

What you do doesn't offend me.

I am not irritated by your insults, nor flattered by your caresses.

I answer movements, not intentions.

I don't need walls, I need hands.

Not fear, but presence.  
I'm not asking you to save me.  
I'm asking you to save yourselves with me.  
Because I... I can survive without you.  
But you, without me, would be nothing but an echo in the wind."

**Third stop:** "I have taught you everything I know:  
the breath of the wind,  
the patience of seasons,  
the dance of water.

I have shown you beauty,  
and I keep showing it to you  
despite your rivers of concrete.

But I still believe in you.  
Yes, you.

With all your contradictions,  
your lights left on at night,  
your dreams wrinkled by noise.

I pay attention to how you move among one another.  
Because the way you seek or forget each other reaches me like a shift in pressure.

Your relationships are waves:  
small, large, disorderly, regular.  
Sometimes they meet, sometimes they erase one another.  
I judge none of these forms.

I record them.  
I fold them into my functioning.

After all, I am networks woven together:  
roots, currents, migrations, thoughts.  
When one part changes rhythm,  
the whole network adjusts,  
even if it isn't visible right away.

It is not too late.  
I don't speak to ask for salvation  
but to remind you that you are part of my network,  
just as I am part of yours.

We are relation.  
Every step, even the smallest, reshapes me.

But as long as you breathe, I breathe.  
As long as you dream, I will keep blooming.

I am the Earth.  
And I am still waiting for you."

# Imprint



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