

# CLIMATE EDUCATION FOR EARLY CHILDHOOD EDUCATORS MANUAL

ISSUE 2



Learning in Nature



ORA NATURE AND EDUCATION



DJEČJI VRTIĆ  
IVANIĆ GRAD



Erasmus+

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## **AUTHORS CONTRIBUTED TO THIS MANUAL**

CHANTAL ROMI (Finland)  
GAYE AMUS (Learning in Nature, Finland)  
ULLA MYLLYNIEMI (Finland)

AHMET ÖNCEL (OBA NGO, Türkiye)  
BENGÜ ERGİN BALTA (OBA NGO, Türkiye)  
RAIN PINGTING GUO (OBA NGO, Türkiye)

ELODIE DA SILVA (N.E.W. Loops, Portugal)  
HELENA COUTINHO (N.E.W. Loops, Portugal)  
MARIA BEZERRA (N.E.W. Loops, Portugal)  
MARIA KLEIN (N.E.W. Loops, Portugal)  
RAFAELA SCHEIFFER (N.E.W. Loops, Portugal)  
RENATA SIMAS (N.E.W. Loops, Portugal)

BILJANA ROVIŠČANEC (Ivanić Grad Kindergarten)  
TANJA CVIJANOVIĆ (Ivanić Grad Kindergarten, Croatia)

BURCU UĞUR (Uncalı Anaokulu, Türkiye)  
ÇIĞDEM İNANÇ (Uncalı Anaokulu, Türkiye)  
HATICE ARDAĞ (Uncalı Anaokulu, Türkiye)





## INTRODUCTION

*Empowering Young Children to Act on Climate Change* is a project that establishes an international dialogue, enables the emergence of a climate action network and tackles the lack of materials and training to empower Pre-K to Grades 1 and 2 teachers and young children through experiential learning in a positive way.

This toolkit introduces the concept of Climate Education, presents best practices in Europe, and offers a selection of 15 games and activities to engage children indoors and outdoors, as well as conclusions and references. It is addressed to teachers and parents who could use it as a guide to connect children to nature, which is essential for adaptation to a changing climate.

This toolkit is within the framework of the Erasmus Plus Programme Empowering Young Children to Act on Climate Change of the European Commission (2021-2-F101-KA210-SCH-000051088). More information about the partner organisations is provided in the final section of this toolkit.



Photo by Ahmet ÖNCEL





Photo by Getty Images



## WHAT IS CLIMATE CHANGE

Global climate change refers to the average long-term changes over the entire Earth mainly due to human activity which results in rising sea levels, rising temperatures on earth, shrinking mountain glaciers, increased frequencies in extreme weather, and changes in flower and plant blooming times. Climate change also affects people's living conditions (rising food cost, relocation, etc) due to drought, heavy rainfalls and rising sea levels. According to Romi (2021) climate change affects different parts of the world differently. Whilst some places are suffering from drought, others are from heavy rainfalls. On a common planet, climate change is a common problem. Countries that suffer less from the consequences of climate change should help others and take in climate refugees.

Not only does it affect humans, it affects vulnerable animal species (marine and land) as well which are unable to move or can't adapt to the changing climate. These species unfortunately face threats due to loss of habitats, food sources and the chain reactions of climate change.

There is more awareness about the affects and countries around the world are making agreements and policies about climate change.

As educators it is valuable to know what these are.

- UN Sustainable Development Goals
- Green Deal European Policy
- Paris Agreement
- Policies in Partnering Countries

**'On a common planet, climate change is a common problem.'**

• **UN SUSTAINABLE DEVELOPMENT GOALS**

In 2015, World Leaders agreed on 17 Global Goals to achieve by 2030. The Sustainable Development Goals aim to end poverty, protect the environment, take measures against the climate crisis, fair distribution of wealth and peace. The Sustainable Development Goals that the UN is working on consist of:



• **GREEN DEAL EUROPEAN POLICY**

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• **PARIS AGREEMENT**

The Paris Agreement was signed at COP21 in Paris in December 2015 and started on 4 November 2016. Although there were 197 signatories to the agreement, there were 191 countries that ratified it. The Paris Agreement sets out a global framework to avoid climate change by limiting global warming to well below 2°C and pursuing efforts to limit it to 1.5°C. It also aims to strengthen countries' ability to deal with the impacts of climate change and support them in their efforts.



Our partner countries have the following policies:

## TÜRKİYE

Türkiye became a part of the Kyoto Protocol in 2009 and the Paris Agreement in October 2021. By taking these steps, Türkiye committed to achieving net-zero carbon emissions by 2053. An important step was taken in developing policies and activities on climate change by adding the term “Climate Change” to the Ministry of Environment and Urbanization in 2021.

## PORTUGAL

The Portuguese government has pledged to close the only two remaining coal power plants still producing electricity within the next three years (ie. by 2025).

In the context of the European Climate Law, the Portuguese Presidency deem it essential to secure a joint commitment to reduce CO2 emissions by at least 55% by 2030.

## FINLAND

Under the Finnish Government Programme, the existing Climate Change Act (Ilmastolaki 609/20153) will be amended so as to enable achievement of carbon neutrality by 2035. Finland has already adopted legislation to phase out the use of coal in energy production by 2029.

## CROATIA

The Climate Change Adaptation Strategy is the first strategic document of the Croatian government to provide an assessment of climate change for Croatia by the end of 2040 and 2070 with possible impacts and vulnerability assessments.



It is valuable to also mention the Climate Change strike that was initiated by a Swedish school girl in 2018, Greta Thunberg. This sparked the movement Fridays For Future. This inspired young people to make their voices heard and their concerns visible. This grew into a global movement including children, teachers, schools and parents. [www.fridaysforfuture.com](http://www.fridaysforfuture.com)



## WHAT IS CLIMATE EDUCATION

Climate education is a part of environmental education. Whilst environmental education focuses more on local issues, climate education has a more global approach. According to the Teachers Climate Guide (2018) the main goals of climate education include **building a sustainable future, inspiring action and practicing influencing skills at the social and personal levels.** It is imperative not only to learn to understand climate change in-depth but also to change one's own behaviour and actions. In this context, behaviour refers to action people take to tackle climate change.

**When adults take steps, children can learn from their actions.**

Climate education means teaching and learning about climate change yet how can this be made possible in early childhood education? The behaviours can change through the adults as the children will be modelling them. When adults take steps, children can learn from their actions. Another fundamental way is to enable children to spend more time in nature.

Climate education means teaching and learning about climate change yet how can this be made possible in early childhood education? The behaviours can change through the adults as the children will be modelling them. When adults take steps, children can learn from their actions. Another fundamental way is to enable children to spend more time in nature. If we want children to flourish, to become truly empowered, says educator David Sobel, let us allow them to love the earth before we ask them to save it. (2018) In essence, as adults, the more we learn about climate change and sustainable lifestyles and the more we also spend time in nature, the more we can support children and their questions.

If we want children to flourish, to become truly empowered, says educator David Sobel, let us allow them to love the earth before we ask them to save it. (2018) In essence, as adults, the more we learn about climate change and sustainable lifestyles and the more we also spend time in nature, the more we can support children and their questions.



Photo by Ahmet Öncel





## GOOD PRACTICES FROM EUROPE

Actions do matter and there are good practices regarding these in Europe. For inspiration in the field of early childhood education, four examples from the partner countries Finland, Croatia, Portugal and Turkey are shared.



### NATURE KINDERGARTEN IN FINLAND

Day Care Centre Mörrintupa is a nature kindergarten which is located in the city of Helsinki and has 29 children with 5 teachers, 1 helper (for kitchen and cleaning) and 1 coordinator. The outdoor kindergarten makes visits to the forest four days a week and are outdoors even if it is  $-15^{\circ}\text{C}$ . What is special about this kindergarten is that they give a lot of time for children to play in the forest, they do not rush and they also focus on expressing emotions and gaining life skills. There aren't any fancy toys in the playground or in the woods and natural materials are what they play with.

Climate change is integrated in the routine. They learn how to enjoy nature so children would respect and preserve it. Every time they visit the forest nearby, they sing a song before entering the forest to ask for permission. A lot of small practices are done every day like recycling and composting. What is important for them is to teach solutions instead of the problems to protect the children from the adult's anxiety.





## KINDERGARTEN "IVANIĆ GRAD" IN CROATIA

Kindergarten „Ivanić Grad“ is the first Eco school kindergarten in Croatia (from 2006) and it has many ecological experiences and many projects behind it, including several Erasmus+ projects. The kindergarten operates in six locations, with a total of 524 children in 27 groups. There are 54 kindergarten teachers that are employed. The professional development service includes pedagogues, social pedagogues, speech therapists and senior nurses. The total number of employees with technical-administrative staff is 84.

The Sustainable Development Programme is part of the kindergarten culture. By working with European partners on a common project Empowering children to act on climate change with a common goal, they haven't only participated in the project, but also have implemented some valuable activities such as how to live better and in harmony with nature. Their kindergarten is located near the woods, so they are visiting the woods more often than before, watching and exploring nature during seasons. Besides playing with leaves, branches and forest fruits, they also make sure to clean the path and if they find some waste they dispose of it properly. In the kindergarten yard they do gardening, maintain it with children and enjoy seasonal fruits as much as they can. Planting trees is also an activity they conduct twice a year to help the Earth „breathe“. Every day they go outdoors, play in the sand, mud or with natural materials nature has given them. „Less is more“ is their new motto. They have a saying that when children are going home with dirty clothes, it means that the day has been really successful.





## "CLUBE DO BIBE" NURSERY IN PORTUGAL

"Clube do Bibe" located in Vilamoura city, Portugal, is a nursery and kindergarten with around 130 children. Despite being located in an urban-residential area, it has an outdoor area where there is a biological pedagogical garden where some small animals live in freedom and feed without restrictions. Children thus perceive the differences and needs of each living being, observing their development and growth, without waste.

The vegetables, aromatic herbs or fruit that grow there go directly from the land to the table and the meals are also prepared by the hands of the children who take care of the garden. The vegetable and fruit peels return to the earth, in a fair and balanced exchange, feeding worms and other curious little animals.

Regularly, in order to provide even greater contact with nature, small groups take walks in the forest. In it, children can simply look, contemplate, run, jump and welcome what nature provides, with the only rule being respect and preservation of the natural environment. Only what is already on the floor is collected and these materials, when taken to the interior space, are used to promote different types of learning, through sensory exploration or their transformation into small utensils.

In a practice that aims to respect the planet and reduce the impact of human action, the moderate use of plastic and other single-use materials is sought. Waste is separated and pedagogical importance is given to reusing, recycling, reducing consumption and waste.

Families are involved in the activities and the practices developed are shared with other groups of educators and education professionals.





## PERMACULTURE IN A KINDERGARTEN IN TURKEY

Bahçeşehir Kindergarten is a public kindergarten in İstanbul, Turkey. Their project that took place during 2019-2021 and consisted of ecological diversity, natural gardening, shelter and design themes. Children met with the animal friends living in school garden and animal friends (worms, turtles, caterpillars, snails, hedgehogs, cats, birds, etc.) were observed by children in their natural habitats.

Arranging an insect hotel, preparing an observatory for observing life in the soil, constructing a habitat for reptiles, cats, birds, creating a tiny aquaponix system for soilless agriculture, recognizing the diversity of plants around the school, planting various fruit trees in the school garden, growing vegetables and fruits in raised vegetable beds, designing a spice spiral that can grow many plants to save space in the school garden, drying plants using different drying techniques, various germination activities, grinding tree branches and making mulch, designing birdhouses with natural materials, water wall design with natural fences for birds to drink water.

Activities such as designing natural fences from old glass, drawing pictures on discarded wood and tiles and using them in garden design, and recognizing houses designed for shelter in different parts of the world were held. Even after the project the kindergarten continues with ecological practices and designs.





## GAMES AND CREATIVE DRAMA ACTIVITIES

Play is the key in early childhood education and with that in mind, a set of fifteen games and activities have been brought together for teachers and parents for climate education.

If the games are played outdoors, it would be good to have the **Leave No Trace Principles** as a basis and guide for more sustainable practices whilst protecting the environment.

When going outdoors it is important not to leave any trace behind, so that everyone can find it as it was or even better. The Leave No Trace organisation shares seven principles that provide an easily understood framework of minimum impact practices for anyone visiting the outdoors. Although Leave No Trace has its roots in sparsely inhabited rural areas, the Principles have been adapted so that they can be applied anywhere - from remote wilderness areas, to local parks and even in a person's own backyard. They also apply to almost every recreational activity. Each Principle covers a specific topic and provides detailed information for minimizing impacts.

The details of the principles can be found on this page:

<https://lnt.org/why/7-principles/>

Leave No Trace for Every Kid is a program that helps children understand how responsible actions minimize recreation impacts and protect the outdoors. These principles can also be applicable to everyday life. (LNT,2022) Here are the principles that can be easily shared and applied with children:

- Know before you go
- Choose the right path
- Trash your trash
- Leave what you find
- Be careful with fire 
- Respect Wildlife
- Be kind to other visitors

When doing the activities in nature or the kindergarten's playground or surroundings these principles can be taken into consideration both by the educators and children.

Alongside the 7 principles, depending on the age for younger children the activity can be more effective and provide a joyful experience if done in small groups. So for example if you have a group of 16 three year olds, it would be better to do the activity with 8 children. If the age is for example 6 years old, then the group size can be 16.

## STORYTELLING ABOUT CLIMATE CHANGE EFFECTS

**Duration:** From 15 to 30 minutes. Depends on the number and age of children.

**Age /Group Size:** Age 3-6 / 5-16 children, 1-2 adults

**Materials Needed:** Materials from outdoor nature like sticks, stones, leaves etc. White cloth (1mx1m)

**Ideal location:** Outdoor, kindergarten's yard or nearby forest. In windy weather you can do it also inside.

**Risk Management/ What to consider:** Children should be advised of what they can pick from nature and what they should better leave there.



**Instructions:** The educator asks the children to take one thing from nature from the ground, it can be anything. Then they form a circle. The educator brings a white cloth and puts it on the ground. She makes a fox from natural materials on the cloth and starts the story telling about an effect of climate change and children are then asked to continue the story and try to solve the problem. For example, "Once upon a time, there was a fox living near the river but he noticed that every year there was less water in the river..." Then a child takes turn to put add a natural material onto the cloth and continue the story. Each child takes their turn in the circle. There are no right or wrong answers. In the story everything is possible. In this game we don't try to teach facts about climate change, rather we talk more about the effects and use imagination to solve the problem. Finishing the story can be challenging for children. If it is so, the educator can finish the story on their behalf. After the game, the educator can make more research about the effect and find scientific facts together with the older children.

**Learning Outcomes:** Children learn that it is allowed to speak about climate change. They practice to empathize with others' feelings and problems. They also practice expressing themselves and listening skills.

**Variation(s):** You can change the subject or materials of the story. You can also think of different kinds of solutions in the story with endings that are sad or happy. You can also make an animation of the story.

**Contributor's name and Country:** Chantal Romi, Finland

## REFLECTING EMOTIONS



**Duration:** ~10 minutes

**Age /Group Size:** 3-6+, max 16

**Materials Needed:** 3-6 different basic emotion cards (like happy, angry, sad, tired, surprised, confused...). There are several different emotion cards you can use. These are downloadable for free from here:

[https://www.tukiliitto.fi/uploads/2018/08/mahti\\_tunnekortit.pdf](https://www.tukiliitto.fi/uploads/2018/08/mahti_tunnekortit.pdf)

**Ideal location:** Anywhere the group can gather together.

**Risk Management/ What to consider:** Be aware if there are children with strong emotions in the group (for example if someone is very sad or aggressive) or shy to express his/her thoughts.



**Instructions:** After a story (for eg. the fox story) or conflict, pick one of the emotion cards and ask the children to make the same face. Then ask what kind of feeling shows the card? After naming the feeling, ask if there were similar feelings in the story or if they did feel that way during the conflict? And you can discuss this with the children. Then you take the second feeling card and do the same, then the third and so on... until you feel that the story / conflict is finished or resolved. You can use emotion cards to relate to the story/conflict.

**Learning Outcomes:** Children's learn to observe, name and discuss their feelings (about climate change / climate actions and so on).

**Variation(s):** You can use emotion cards in many ways. There are many suggestions on how to use them. To make the face yourself before mentioning the emotion is one possibility (this can be done with children with special needs as well). Also as another variation you can let a child pick out a card.

**Contributor's name and Country:** Ulla Myllyniemi, Finland

## A GOODWILL GIFT



**Duration:** 10 minutes or more

**Age /Group Size:** 3-6+ years, whole class

**Materials Needed:** Pictures of gift boxes drawn on recycled paper as much as there are players + one for the educator to show the kids how it can look like.

Pegs if you do this outdoors. A basket or a small cloth bag.

**Ideal location:** A park, forest, or a garden where you can walk or run. If indoors, an open room with enough space.

**Risk Management/ What to consider:** Check the place in advance preferably before children arrive in case of sharp objects on the ground like broken glass/garbage etc.



**Instructions:** Before children arrive you have already drawn a picture of a gift on a piece of paper the size of your hand and made one for each child. Hide the pictures in the nearby area for the children to find them. Show them the example picture so they know what to search for and tell them that there is one gift picture hidden for each child. You can say eg. "It's so nice to play with you. I hope we can play together!" Invite the children to go and find the gifts and bring them back. Then the children put the gift in the mutual gift bag. When everybody has found a gift and put it in the bag, the educator tells the children that not all gifts have to be material gifts (for eg. a smile is a gift as well). Also, that instead of giving a bike as a gift to a friend, you can let him/her borrow yours. Then the educator says that we all can give this kind of goodwill gifts to each other. Each child can now choose one gift from the gift bag and give their imaginary gift to the group.

When all the gifts are given you can talk about how it feels to hear good words and wishes and do things together without giving material gifts. Later you can have a goodwill bag somewhere in your classroom and you can use it anytime someone wants to give someone a goodwill gift.

**Learning Outcomes:** This game shows to the children that there are alternatives to consumption. Also immaterial gifts are good and they can make someone happy. You don't always need to give material gifts.

**Variation(s):** Depending on the group size and age, you can divide the children into pairs/ groups with adults or work as one big group. Each child can now choose one gift from the gift bag and give it to the pair / next child or to the whole group.

**Contributor's name and Country:** Ulla Myllyniemi, Finland



## WHAT GROWS HERE?



**Duration:** From 15 to 30 minutes. (Depends on the age of the children.)

**Age /Group Size:** Age 4-7 / size 5-14 and 2 adults

**Materials Needed:** White cotton cloth (size 50cmx50cm), first aid kit, small backpack, small cloth bag (eg.8x8cm).

**Ideal location:** Outdoors where there are trees, kindergarten/school's yard, park, arboretum or nearby forest.

**Risk Management/ What to consider:** Pre-preparations: It is good to find out about the natural environment's fauna and flora before you go there. If the season is spring or summer when the trees are bearing fruit it is good to know in advance if there are any poisonous plants or insects that might cause allergies in the area. Having trained first aid and carrying a first aid kit in your backpack would be important when being outdoors. Through the information slips about the children do check about their food allergies.

If you are going to a park, find out in advance if they are spraying pesticides on the trees. It would be beneficial if you could collaborate with them to decrease/cease to do so. If there are pesticides being used, refrain from eating the fruits there.



Make an agreement with the children that they always show you what fruit they have picked before they put it in their mouth. Children should be told what they can pick from nature and what they need to leave there (especially if there are endemic plants).

**Instructions:** The educator and children go to the natural area/garden and make a circle. The educator has a cloth bag with fruits from different trees. Children are split into small groups of 3-4 depending on the size of the group. 1 child from each group pulls a fruit from the bag. You tell the children to go around and try to match the fruit with its tree and come back to the circle. When they have found the tree you ask them to bring the fruit and the leaf of the tree that is on the ground back to the circle and put it on the white cloth. You can ask the group if they know the name of the tree. See what they know and if they don't know the tree you can go together to see what tree it was and get a closer look in the end. If you are sure that there are no pesticides used and children don't have allergies, then you can even taste the fruits.

**Learning Outcomes:** Getting familiar with the natural environment. Learning what grows in that place.

**Variation(s):** If the fruit is not ripe yet or there aren't any on the ground, instead of seeds or fruits you can put leaves in the bag. Just asking the children to match leaves they pull out of the bag to the tree and then putting that leaf on the white cloth when they have matched it is also possible. In the end everyone can look at all the leaves on the cloth and share what tree they think it is.

**Contributor's name and Country:** Gaye Amus, Finland

## DEER, DEER, DEER!



**Duration:** 15 to 30 minutes

**Age /Group Size:** 6+, 10 or more

**Materials Needed:** Rope or something to mark the line for the children to stand. Illustrated cards if needed for younger children.

**Ideal location:** A park, forest, beach or a garden where you can walk and run.

**Risk Management/ What to consider:** During the activity, children might grab or push each other so it is better to demonstrate gentle arm linkage before you play the game. You can provide illustrated cards if participants cannot remember the hand signals.



**Instructions:** Put two ropes on the ground in a line 3-5 metres separate from each other. Gather in a circle and divide the group into four subgroups (Deers, Food, Water and Shelter) depending on the number of children. Ask the group to decide on the hand signal that they want to use for describing food, water and shelter. The group of the deers will be on one side of the rope, and its needs (the other 3 groups: food, water and shelter) on the other side of the rope.

Now all groups, deers and the needs, will go to their respective side, but stand with their backs to each other. Each deer will choose the need they would like, by placing their hand signal on their chest. At your start signal (for eg. count of 3) both groups will turn towards each other, showing their hand signals clearly. The deers must then walk briskly towards the needs that show the same signal. Each need may only have 1 deer. Once the deers have found their needs, they'll bring their needs back to their side. Those needs have now become deers (as the deers have successfully found their needs, giving them the ability to live and make families)

If a deer doesn't find its need, you can demonstrate to the child how you fall on your back on the ground pretending to faint because they are tired, thirsty or hungry. To make it more inclusive, if would like to play the game again, the child can continue to be in the game but walk more slowly and act out if he/she is tired, hungry or cold.

**Learning Outcomes:** Children learn about the necessities of what animals need in order to survive which are the basics, food, shelter and water. They learn that if the deers can't find what they need, the chances of survival are lower. We can also talk about what happens if there are more deers than resources (water, shelter, food) and also what type of habitat does the deer live in, what type of food do they eat and with which actions, we as human beings could contribute to the survival of the deer population.

**Variation(s):** You may change the animal, needs and the name of the game according to your local ecosystem. Also instead of food, shelter, and water, you can do it like a food chain, like bees, flowers, sunlight, water, etc.

**Reference / credit:** Adapted from Cornell, 2015.

Video of the game: [https://youtu.be/G\\_79b-8y8vY](https://youtu.be/G_79b-8y8vY)

**Contributor's name and Country:** Rain Guo, Türkiye

## FOR THE COMMON GOOD



**Duration:** 15 to 30 minutes

**Age /Group Size:** 6 years and up/ 10-16 children

**Materials Needed:** Ten similar “tokens” It could be pebbles or sticks, etc for each participant. A paper or cloth used as a “Pool” to place the “tokens”. Size of the paper/cloth depends on the size of the group, just as long as it's big enough to fit all the “tokens” in. A prize that could be shared by everyone, like a bowl of apples.

**Ideal location:** Anywhere, where everyone can sit or stand in a circle with space in the middle for the “Pool”.

**Risk Management/ What to consider:** Ensure boundaries if it is a big outdoor area and time are set for children to pick up the tokens and show them what to pick. Make sure there are enough materials around for children to pick. If they pick pine cones, fruits or things from the ground you can remind them to put them where they got them from after the game.



**Instructions:** Make a circle. From the pile of tokens, put approximately a quarter of them into the center of the group on a flat surface, a piece of paper or cloth (pool). Do not explain the significance of the tokens before playing the game! Read the rules to the participants twice or more until everyone has understood the game! Also you can let one of the children explain the rules. Rules:

- The name of this activity is called “The Common Good”.
- The tokens belong to all of you.
- I will hum a tune/play music, whilst the music is playing, everyone may take the tokens out of the pool in the center.
- When the music stops, I will double the amount of tokens remaining in the pool at that point and continue the game.
- There will never be more tokens in the pool than there were in the beginning, this is the maximum number of the tokens the pool can hold.
- You may not communicate in any way with anyone during the game, if you do, you’ll forfeit your tokens.

The players will likely empty the pool at the start of the game. When the pool is empty, declare the game to be over as you cannot double zero tokens.

You may end the game at this moment, if the pool is empty and ask how many tokens each child has got. Discuss how it makes them feel to have more when the rest have less and vice versa or why some only took one.

You may ask what do the tokens represent?

You may also use the tokens to symbolize resources such as trees, water, food, etc. For older children you could review how such renewable resources could be maintained if managed properly and given the time to be replenished.

**Learning Outcomes:** Children will learn and reflect on their actions through the discussion of emotions during the game where they count the tokens they took or didn’t take. If resources are mentioned, children can learn about what renewable means and also reflect on their daily actions and if they will revise their habits.

**Variation(s):** It can also be done without the rules for younger children. So you would just put a cloth with pebbles or sticks whatever is chosen as “tokens” and say it is ok to pick. Children can be debriefed on how they feel when they have more, less or none and how they feel when they see others who have more/less than them. And in depth questions could be posed, if you feel it's suitable.

**Reference / credit:** Adapted from Ruby R. Cristobal, Ph.D. (Philippines). For the Common Good activity was developed by Kurt and Ursula Frischknecht and Karen Zimbelman found in Thinking Globally and Acting Locally: Environmental Education Teaching Activities by Lori D. Mann and William B. Stapp ERIC/SMEAC ©1982 <https://populationeducation.org/wp-content/uploads/2017/10/for-the-common-good-1.pdf>

**Contributor’s name and Country:** Rain Guo, Türkiye

## FIRE TENDER



**Duration:** 15 to 30 minutes

**Age /Group Size:** 5 and above/ 10-16 children

**Materials Needed:** Blindfolds, costume for the animal in the middle and lots of sticks.

**Ideal location:** A park, forest, beach or a garden where it is possible to hear footsteps or indoors.

**Risk Management/ What to consider:** Show the children how long the sticks should be. They can be for example the length of their arm and as thick as their two fingers on top of each other. If you are outdoors, remind the boundaries of the area to where the kids can be looking for their sticks. It is best to choose a child who wants to be blindfolded as some children may not feel comfortable about being in the dark.



**Instructions:** The educator puts sticks on the ground, leaving the center free, enough for a child to sit in it. This can be done in advance before the children come to the place.

When the educator comes with the group and the children to the place he/she can start telling a story. The educator whispers saying that there is an animal sleeping in the forest. "What animal could this be? We need to be very quiet so it doesn't wake up." They choose an animal and say that we need to collect sticks to make a shelter/fire without waking up the animal. Form a circle with the participants, select one person to be blindfolded, the selected blindfolded participant will be led to the middle of the circle and be sat down.

The objective of the game is for the participants to sneak up and take one or two sticks at a time, without being noticed.

If the blindfolded participant hears a noise, he/she has to point to the direction where they have heard something. When it is the right direction the person caught in the act will lose the stick.

Once the sticks are all collected, we can ask how it felt to be the animal and how to walk quietly to pick up the stick. Next we will count the sticks and if there is still time, use the collected sticks to make houses for the animals/elves/fairies (depending what is suitable in your culture) or use them as fuel for campfires.

**Learning Outcomes:** They learn how to tip toe and be as quiet as possible as not to wake up the animal. By this they learn to be mindful that there are other beings in nature and empathize with them.

**Variation(s):** Other objects could be used instead of sticks.

**Reference / credit:** Adapted from:

<https://www.ultimatecampresource.com/camp-games/nature-games/fire-tender>

**Contributor's name and Country:** Rain Guo, Türkiye

## GUESS THE NAME/WORD (PANTOMIME)



**Duration:** Minimum 20 minutes

**Age /Group Size:** 6+/ 15-20

**Materials Needed:** Cards to write words on or illustrations if children can not read yet. If they are able to read by themselves, write the word and make sure its meaning is clear.

**Ideal location:** Outdoors (Garden, woods, meadow) or inside of the classroom

**Risk Management/ What to consider:** Make sure that the game doesn't trigger the child if they have been in a natural disaster before. Know the child's background in advance.



**Instructions:** We select words and create illustrated cards we will be using during the game, representing climate events (e.g. drought, flood, tornado). We invite a volunteer to come in front of the others, let her/him take a card and ask to describe the name on the card without making sounds. The child will do a pantomime to represent the climatic event, while the others have to guess what it is. Talking is not allowed, only movements. The child who says the climate event correctly picks up a new card to continue the game.

**Learning Outcomes:** Knowledge of climate events, body language, interpretation of pictures or previously acquired vocabulary.

**Variation(s):** Words representing the events can be whispered to the child instead of using words or illustrations.

**Contributor's name and Country:** Lidia Zdunkiewicz, Poland

## TRAIN ON IT'S WAY (SONG AND GAME)



**Duration:** 15-30 minutes

**Age /Group Size:** 2-7 years old

**Materials Needed:** No material needed.

**Ideal location:** Outdoors or enough space inside.



**Instructions:** The lyric of the song is:

**“Come along, come along,  
Train is on its way.  
Come along, come along,  
Watch people wave.  
Come along, come along, train is on its way.  
Pshh it stops, pshh it stops.  
(name of child) Joins hurray!”**



In this game the educator starts as a locomotive and all children are in a circle either sitting or standing singing the song together with the educator. When the train stops at the end of the song, it takes one child on board the train. The train will have more carriages in every turn. The educator can ask from which country the child comes from and what animals or what kind of environment and climate there is when he/she stops in front of the child. The game continues until every child has joined the train and in the end the whole class takes one more tour around with the song.

**Learning Outcomes:** When we are playing this game, we should discuss that travelling by train is more climate friendly than travelling by plane. They will be familiar with the option of train rather than plane.

**Variation(s):** We can ask the children to imagine that we travel by....? They can suggest environmentally friendly solutions.

**Reference / credit:** Inspiration for this game came from the Finnish song "Juna raiteillaan". The melody and words were translated into english. You may choose another childrens' song melody from your own country and use the words above with it.

**Contributor's name and Country:** Gaye Amus, Ulla Myllyniemi and Chantal Romi, Finland

## THE WEB OF LIFE



**Duration:** 15 minutes

**Age /Group Size:** 5+, 8-10

**Materials Needed:** Nature Cards on a string that can be hung around the neck of each child, yarn of wool. The Phylo deck of cards can be printed here: <https://phylogame.org/uhill2020/> In a preparatory activity nature cards can be created together with the children.

**Ideal location:** Outdoors

**Risk Management/ What to consider:** Take the age of the children into consideration when choosing the number of cards and size of the group. If the group is too big, the activity will take too long making it inappropriate for their age and letting children wait too long for their turn. If the group is too big consider splitting the group into two and trying it out with only 8-10 children for example one day and the other group another day. If in the woods, remember to collect the cards from children after the activity so they do not have the cards around their neck while free play especially if they run or climb a tree.



**Instructions:** The educator forms a circle with the children and the game starts with the educator handing out the Nature cards (one living being or element of nature), one for each child, for them to put around their neck. With the card, they receive that role in the game, so for eg. if the child receives a bee he/she might say it makes honey. A child then chooses another role in the Web of Life and says some words about how the two living beings/elements of nature relate to each other. For example another child might have a picture of a flower and says “the bee needs the flower to make honey”. The educator (also part of the game) starts by throwing the yarn of wool and talking about the connection, helping the children to throw the yarn to the other child if needed. The game may stop when all participants are part of the Web, but it also can go forward if the children are interested in continuing the Web of Life.

The last part of the activity emphasizes on noticing the nodes of connection in Nature, finding out who are the actors holding the biggest number of connections and asking them to drop the wool lines. This will have an effect on the web, and their understanding should be explored by asking them questions:

What happens when there is no “lizard” for example?

Who is unhappy when there is no “sun”?

What do you think that should be done to protect this animal/plant?

And the game can end with an appreciation to the Web of Life, in the form of a brief song: “we are all connected, we are all related, we are all one!”

**Learning Outcomes:** They will be familiar with interconnections and ecology. The activity will bring awareness to diversity and how each element in nature is important. It may give the feeling of being one with Nature.

**Variation(s):** Children (3-5) choose simple cards and connections, since they may not have the means to explain the connection, so they can say: ‘ “Squirrels” need “water”!’

Older children (6-10) can play by saying: “I’m a “Rose tree” and I relate to the “soil” by receiving from it everything I need to grow!”

**Reference / credit:** Adapted from: <https://www.scouts.org.uk/activities/web-of-life/>

**Contributor’s name and Country:** Rafaela Scheiffer, Portugal

## STAND UP FOR THE PLANET! (SONG AND GAME)



**Duration:** 5-15 minutes

**Age /Group Size:** 4-10 years, 6-16

**Ideal location:** Classroom, Outdoors

**Risk Management/ What to consider:** If the children are not familiar with the word planet or earth yet due to their age or cognitive development, it can be adapted to as "where they are living".



**Instructions:** The educator asks the children to form a circle and squat. She/he will say sentences related to human actions. If the child thinks that is an action that helps protect the planet, she/he stands up, but if the action sounds like a hazard, something that is not OK to do, he/she will squat down.

Examples of questions:

- Close the tap during tooth brushing (stand up)
- Throw materials in the river (squat)
- Throw metal in the blue bin (squat)
- Cycle or walk to school (stand up)
- Eat all food you put on your plate (stand up)
- Compost rest of food (stand up)
- Leave lights on when you leave the room (squat)
- Use reusable bags for shopping (stand up)
- Buy new plastic toys every month (squat)

Level up:

- Use biodegradable soap and shampoo (stand up)
- Use the bath water to water the plants (stand up)
- Drive a car with only one person to work (squat)
- Take your ideas to the local politicians (stand up)
- Cut the grass with a oil-powered machine (squat)
- Get plastic bags every time I go to the supermarket (squat)

**Learning Outcomes:** Awareness of what actions we should do. Finding out about some actions and their consequences. Learning through moving.

**Variation(s):** Whilst children (3-5) can respond to the educator's narration, older children (6-10) can be invited to propose their own sentences, after the educator has read one or two.

**Reference / credit:** Adapted from:

<https://www.teachstarter.com/gb/teaching-resource/sit-down-if-getting-to-know-you-elimination-game-gb/>

**Contributor's name and Country:** Rafaela Scheiffer, Helena Coutinho, Portugal and Tanja Cvijanovic Krnjaic, Croatia



## THE APPLE FARMER



**Duration:** 20-30 minutes

**Age /Group Size:** 4-6 age

**Materials Needed:** Tablecloth big enough to cover a child standing.

**Ideal location:** Garden, classroom

**Risk Management/ What to consider:** Encourage brisk walking instead of running.



**Instructions:** The educator tells a story about a farmer working in the apple orchards and tells the children the farmer has invited them to visit his orchard to pick apples. What is special about this farm is the apples have other friends growing together with them. So it's not just apples but also raspberry bushes, different herbs like dill or garlic chives and even grapes crawling around a tree. At the farm, the other apple pickers are resting for the afternoon so the children have to be as quiet as possible while picking the fruits or herbs so as not to disturb their sleep. While the children are walking around and picking the fruits and herbs, the educator says they will play a game. He/she whispers that the children were so quiet while picking fruits that it was almost difficult to see him/her. They continue to walk and stretch for apples, or bend to pick herbs and at one moment asks them to close their eyes. Here the educator will select one child and cover him/her with a tablecloth. When the children are told to open their eyes, they would have to guess which child is hidden under the table cloth. This game can be played a few more times by choosing different children.

**Learning Outcomes:** It will support observation and awareness of surroundings and others around them. Children will learn to empathise with people who need to rest. Children will do teamwork to identify who is missing and they will practice their memory skills. Children will be familiar with the concept of apple orchards being diverse rather than monoculture.

**Variation(s):** The task of covering a child with a table cloth can be given to one of the children. If the table cloth is not big enough to hide a child, you may ask all the children to crouch when they close their eyes. The educator or children can ask what their friend has picked in their imaginary basket when they lift the tablecloth off that child.

**Reference / credit:** Inspiration from the apple orchard explained here:  
<https://www.tenthacrefarm.com/how-to-build-a-fruit-tree-guild/>

**Contributor's name and Country:** Burcu Uğur, Türkiye and Gaye Amus, Finland

## OCEAN CLEAN UP



**Duration:** 15-20 minutes

**Age /Group Size:** 3-6 age

**Materials Needed:** No material needed.

**Ideal location:** Outdoors, playground, classroom. Preferably by the seaside.

**Risk Management/ What to consider:** You may want to set space boundaries for the activity if it is a large area yet ensure there is enough space to move and run. If indoors make sure there is nothing on the floor or surrounding that they may fall over or hit a corner. If outdoors in nature check the ground for stumps or other big roots that they might trip over while running during the game.



**Instructions:** You may want to tell a story about the ocean before starting the game. The educator will be acting as an ocean clean up vessel and the children will be the marine debris/garbage of the ocean. The educator will start by saying that they will play a game and that he/she got the idea from a teenager who found a way to clean the ocean from garbage. The educator tells the children that he/she will be an ocean clean up vessel and the children will be garbage and that the vessel will try to catch them. The garbage that was caught will join the chain of garbage behind the vessel. The game continues and the garbage chain is trying to catch more garbage without breaking apart. The game continues until all the garbage is gone.

**Learning Outcomes:** Children will be familiar about the ocean cleanup project <https://theoceancleanup.com/oceans/> which was developed by a teenager at that time. They will be aware that it is not OK to throw garbage into the ocean.

**Variation(s):** For children 5+ the educator can divide the children into different categories of garbage. Such as glass, plastic, paper etc. and the cleanup vessel has to first catch all the trash from one category before moving to the next category.

For children 6+ there can be a discussion on what types of garbage can we find in the ocean, how did the garbage get there, how does it affect marine life and what can we do on our part.

**Reference / credit:** Inspiration from the original game played as a vacuum cleaner.

**Contributor's name and Country:** Hatice Ardağ, Türkiye

## BIRD MIGRATION



**Duration:** 15 minutes

**Age /Group Size:** 4+ , 5-20,

**Materials Needed:** Blue fabrics or ropes

**Ideal location:** Enough space to move and run

**Risk Management/ What to consider:** Remind children to make space for other birds to fly when flapping their wings (so they don't accidentally bump into one another).



**Instructions:** The educator puts different sizes of blue colored fabrics/ropes in different spots of the space. He/she tells the participants that these fabrics represent wetlands. What wetlands are can be discussed with the children. He/she can ask which creatures live in wet ecosystems such as the sea, lake, river and then can be animated with the children. Then, the educator chooses a migratory bird, and the group will portray this bird by making its sound. When the educator claps his/her hands, all the birds fly around the area without touching the fabrics, imitating the migration of the bird from one wetland to another. When the leader claps his/her hand again, all the birds try to stand on a cloth. Each turn, the leader removes a piece of cloth. At the end, only one piece of cloth remains and the leader says that all the birds must remain in one area. At this stage, the difficulties experienced by migratory birds due to the decrease in wetlands are discussed.

**Learning Outcomes:** Getting to know about migrating birds and their lifestyle. Learning about wetlands. Experiencing the effect of climate change on migratory birds.

**Contributor's name and Country:** Ahmet Öncel and Hüseyin Çağlar İnce, Türkiye

## THE BROWN FISH OWL STORY ( PROCESS DRAMA)



**Duration:** 40 minutes

**Age /Group Size:** 5+; 5-10 children


**Materials Needed:** Owl Puppet; The Brown Fish Owl Picture or Video; Clay; blue, brown and green paper or fabrics, natural materials.

**Ideal location:** A place big enough to display the materials (floor or a table) and enough space for moving and sitting.

**Risk Management/ What to consider:** It is suggested to have a group size of max 10 children for this story so the activity around the table/ground will be more calm and each child will have enough space to work together. If the group size is more than 10 it will be difficult for children to do the art activity altogether as it will be crowded, therefore in such a case you may consider to split the group into two, to put two separate tables/arrange to separate areas as well as have enough materials for each group to create two separate habitats. Some children might not like the puppet to touch their head so be mindful about it.



Photo: Atefeh Moosavian



**Instructions:** The educator writes or says (for those who can't read) 'Ketupa zeylonensis' latin name on the board/paper. And asks the children about this word. The children try to guess what it is: "Is it the name of a planet? Is it a kind of robot? Or is it a mushroom?". After the children make guesses, the educator says 'Maybe I can show you what it is'. Then the educator starts a drama technique called "Leader in Role". The educator makes / plays the sound of a Brown Fish Owl. Then takes the puppet of the owl and makes it fly around the classroom/space and pauses at some spots like childrens' heads ,chairs or logs depending where it is taking place. The educator invites the children to be an owl and fly around the space and to make owl sounds. When the owl has got the attention of all the children it starts to talk. It asks the children if they have some fresh fish.The owl introduces itself "I'm a Brown Fish Owl" and it says it's favorite food is fish. Then the owl tells the children that it has problem finding fish because it's river has dried up. And also last year there was a big wildfire in it's forest and it is obligated to change it's habitat. The educator takes the owl out of the class making it fly away. (Here the educator can hide the owl somewhere and if outdoors for example behind a tree) The educator then comes back and talks to the children about the problem of the owl and the reasons behind it's immigration. Then the teacher takes a new role and becomes a person who brings the newspaper and reads this information to the children to tell that the owl is on the red list and it needs a habitat to live. In the newspaper, children can also see the picture of the owl.



**News in Newspaper:** *The Brown Fish Owl is a fish owl species from the family Strigidae. It is native to Türkiye and to South and Southeast Asia. Due to its wide distribution it is listed as Least Concern on the IUCN Red List.*

Source:

<https://www.iucnredlist.org/species/22689012/90010491>

*It inhabits forests and wooded wetlands. It is a potential endangered species due to the drying up of rivers and forest fires. Climate Change is affecting also the Brown Fish Owl.*



The teacher gives clays, fabric, sticks to children (or if outdoors, children can collect some materials from nature) and ask if they can set up a new habitat for the Brown Fish Owl. As a team, children and the educator work together to make a forest and river for the owl. When the habitat is ready the educator plays a role and takes the owl puppet. The puppet visits the new habitat and thanks the children for help.

The first part will take approximately 20 or more minutes which is ideal in terms of concentration for this age. For children 6+, the educator can continue to offer the children to play an owl and fish game. The owl is very hungry and it wants to catch some fish. The educator says, we have one person in the role of an owl and the rest of the group are fish in the river. The owl plays the role of flying and trying to catch fish. The educator limits an area with a blue fabric/rope symbolizing a river. The children (fish) can only run in this designated blue area. The ones who are out of this blue area are considered caught. When the owl catches one fish, the fish joins the owl and becomes a bigger owl together. Children in the role of the owl must hold each others hands, making almost like a chain and run to catch other fish. This can continue until there are 3 fish (children) left uncaught and the educator can say that the owl is full and has decided to leave some fish in the river. At the end when all the fish are caught, we have a happy big owl flying in the space. And some fish swimming together in the river.

**Evaluation Step:** The educator asks the children their feelings about the Brown Fish Owl. A follow up question such as “What we can do for the Brown Fish Owl and what is our role for helping the animals in nature” can be asked. For children 6+ the educator can also link the topic to Climate change and our role in it. At the end of the activity, the educator can invite the children to make an owl model from clay and place them on the habitat set.

**Learning Outcomes:** It will raise awareness for the children about the reasons of the extinction of species, They will find out about the lifestyle of The Brown Fish Owl and the geography where it lives. They will be familiar with some measures we can take to adapt to climate change and reduce its effects.

**Variation(s):** It can be adapted to any animals registered in the endangered red list, that are affected by climate change.

**Contributor’s name and Country:** Ahmet Öncel, Türkiye and Gaye Amus, Finland



## CONCLUSION

The activities and games proposed in this toolkit are complemented by a policy document to support teachers and their school communities in the journey of living the motto. They are now part of an international network mobilising resources to make formal education an ally in responding positively to the XXI. century challenges.





## PARTNERS

### LEARNING IN NATURE (FINLAND)

Learning In Nature Ltd is an education company based in Helsinki, Finland that offers training to educators on outdoor learning, as well as consulting and professional support on sustainability to companies, organizations and public administration. As a general way of working these services take place primarily outdoors in the inspiring nature. The organization provides courses and training to teachers and parents to bring awareness in kindergartens and schools as well as daily lives for a more sustainable and conscious way of living. These courses are mainly on outdoor learning, forest and nature-based kindergartens, outdoor classrooms and climate education.



[www.learninginnature.com](http://www.learninginnature.com)



[info@learninginnature.com](mailto:info@learninginnature.com)



Learning in Nature

### OBA NATURE & EDUCATION (TÜRKİYE)

OBA is a non governmental organization situated in Antalya, Turkiye, nestled between orange and pomegranate orchards. OBA uses nature based learning and art facilitation as effective tools for teachers, adults, and youth in a non-formal education context. Currently, OBA is working on Erasmus Plus projects involving climate change education for young children and nature based learning in kindergartens. OBA provides training courses for youngsters and adults on the following topics: Nature Based Learning, Inclusion in Nature, Climate Change Adaptation and Sustainability, Game Based Learning and Gamification and Creative Drama.



[www.obader.org](http://www.obader.org)



[obadernegi@gmail.com](mailto:obadernegi@gmail.com)



OBA NATURE AND EDUCATION



## UNCUALI KINDERGARTEN (TÜRKİYE)

Uncuali Kindergarten is in the Mediterranean Region of Türkiye in Antalya. It is a public kindergarten that has general purpose pre-school education which uses art methods and creativity. The kindergarten has Eco School qualification and the teachers are inspired with nature based learning and outdoor activities. In this kindergarten educational content is expanded and deepened with art, music, dance and theatre. The institution responds to the needs of the child and family. In the process of children's education innovative teaching methods are applied. The kindergarten seeks for continuous improvement and lifelong learning.



[www.uncualianaokulu.meb.k12.tr](http://www.uncualianaokulu.meb.k12.tr)

## N.E.W. LOOPS (PORTUGAL)

N.E.W. Loops (Nutrients, Energy and Water Loops;), is a Portuguese non-profit NGO whose main objective is to provide knowledge and tools to people of all ages to make their lives more sustainable and reduce their personal ecological footprint. Like this they inspire and empower people to do their part in mitigating climate change. To reach their goals, they are active in non-formal education, e.g., Permaculture education, in developing and applying various environmental technologies, in outdoor learning and free play activities to raise connection with nature, and coordinating as well as participating in several ERASMUS+ projects.



[www.newloops.org](http://www.newloops.org)



[info@newloops.org](mailto:info@newloops.org)



## IVANIĆ GRAD KINDERGARTEN (CROATIA)

Ivanić Grad Kindergarten is a public kindergarten in Croatia and it is the first Eco school kindergarten in this country. During the pedagogic year, depending on interest and age, important dates for the planet are marked - they exercise on Olympic Day, cycle and hike in Mobility Week, study storks, bats and beavers as protected animals of their region. They also mark days of Thanksgiving for the fruits and vegetables and much more. They conserve water, separate paper, and plastic, collect plastic caps and old batteries, plant vegetables, make honey from dandelions, syrup from pine needles, dry herbs for teas and much more. They were involved in the Living Streets city-wide project and participated in workshops on making an insect hotel and a vertical herb garden, but also received gardening kits and pumpkin seeds that they planted in their yards and observed their growth with interest.



<https://www.djecjivrtic-ivanic.hr>



[info@djecjivrtic-ivanic.hr](mailto:info@djecjivrtic-ivanic.hr)

## ERASMUS PLUS PROGRAMME



Erasmus+

Our project is funded by Erasmus Plus Program. Erasmus+ is a program carried out by the European Union between 2021-2027. It aims to support education, training, youth and sport. Activities under the program are grouped under three main actions and two specific actions. Educators can carry out their projects by presenting them on topics such as environment, social inclusion, entrepreneurship, digitalization, and diversity. With the climate crisis becoming an increasingly important issue in recent years, the support given to projects with the theme of environment and climate change has increased. More detailed information about the program can be found at the given link:



<https://erasmus-plus.ec.europa.eu/>





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