# A Youth Leader's Guide to Climate Education

Weekends FOR CLIMATE

# A YOUTH LEADER'S GUIDE TO CLIMATE EDUCATION

Weekends FOR CLIMATE

Pinskut
Elämyksiä, iloa, yhdessä!

Nuoret Kotkat

Opetus- ja kulttuuriministeriö

TRADEKA

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# FOREWORD

Dear reader,

This booklet on climate education by the Weekends for Climate project serves as a guide to climate-related issues and provides tools for climate education outside the academic context. The booklet is targeted to youth leaders, teachers and others working with children and teenagers. The booklet is an updated and translated version of the Finnish language original "Ohjaajan opas ilmastokasvatukseen", combined in the preceding Liikkuva luontoleiri project, which you can access at luontoleiri.fi.

The first chapter briefly goes through what man-made climate change is about. The chapter examines the causes and consequences of climate change and presents ways in which it can be mitigated. The second chapter introduces climate education. The chapter goes through the background and goals of climate education and why it is important. The third chapter delves into how to discuss climate issues with children and young people in leisure activities. The chapter discusses age-specificity and the special features of leisure activities and provides practical tips for instructors interested in climate education.

In the fourth chapter, you will find a range of activities about climate change, its causes and consequences, and how to tackle it. The activities will also deal with the global aspect of climate change and how it affects people differently depending on where they live. The activities are applicable to a number of contexts, from clubs to camps and other events. Many of the activities are also suitable for virtual collaboration, that is shared virtual sessions between groups from different countries/areas. To implement the activities, you do not need to be an expert on climate change, as eagerness to learn and work with young people is more than enough.

You can find a useful Glossary about the central terminology at the end of this guide, as well as useful sources for further information.

Weekends for Climate is an environmental education project by children's organizations Pinskut and Nuoret Kotkat. The project has organized different types of climate-related and globally oriented events for youth around Finland in 2021. Our project partners have implemented similar events in the Czech Republic (Pionyrska skupina Sumperk), Germany (Kinderring Berlin), Slovakia (Centrum voľného času Prievidza) and Zimbabwe (Patsimederu Trust).

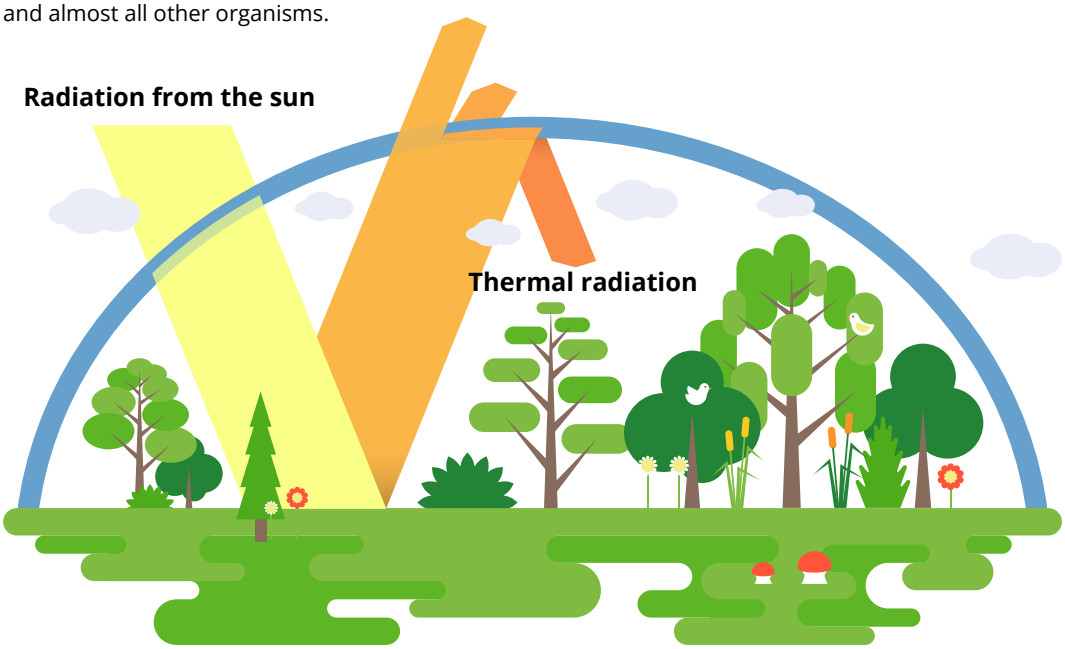
Wishing you rewarding learning moments
**Weekends for Climate**

# 1

# WHAT IS CLIMATE CHANGE?

Climate change refers to the rise in the global average temperature over a long period of time. The rise in temperature is caused by the intensification of the greenhouse effect. The natural greenhouse effect is a vital prerequisite for life on Earth. Thanks to the natural greenhouse effect, the temperature on our planet is just right for people and other organisms to live and thrive.

In the greenhouse effect, the Earth's atmosphere acts like the glass roof of a greenhouse: it lets the radiation from the Sun pass through to the surface of the Earth, but prevents the thermal radiation emitted by the Earth from escaping into space. About a third of the Sun's energy coming to Earth is reflected back into space. The rest is absorbed by the ground, the surface layer of the seas and the atmosphere. At this point, the energy from the radiation is transformed into heat. On Earth, the invisible greenhouse gases floating in the atmosphere act as the glass roof. These gases include water vapour, carbon dioxide, methane and nitrous oxide. If not for the greenhouse effect, the Earth's average global temperature would be 20–30 °C colder than it is now, and the Earth would be uninhabitable to humans and almost all other organisms.




**Caption: The basic idea of the greenhouse effect: the radiation from the Sun (yellow arrow) enters the room through the glass roof, but the roof traps most of the thermal radiation trying to escape (orange arrows). Part of the thermal radiation escapes directly into space (the smallest orange arrow), part of it is absorbed by the atmosphere (the thickest orange arrow), from where the heat continues to radiate both into space and back to the surface of the Earth (two-way orange arrow).**

## HUMAN ACTIVITY WARMS THE CLIMATE

There have been several periods of climate change in the history of the Earth. Even the greenhouse phenomenon has existed for almost as long as we can imagine. However, in recent decades, the climate has changed faster than ever before. This change is mainly due to the actions of a single species: humans. The impact of humans on the atmosphere and the nature has been so great that the current geological era is often referred to as the Anthropocene, named after our species.

Human-induced climate change is driven by the over-consumption of natural resources brought about by the industrialization of societies, in particular the exploitation of non-renewable fossil fuels such as oil, coal, natural gas and peat. Fossil fuels are needed to manufacture and use almost all of the products and services that we consume. They are used, for example, in transportation and to produce energy and heat, and some of them can also be used as raw materials for goods. As a result of human activity, more emissions are released from fossil fuels than carbon sinks (vegetation, the seas and the soil) can absorb. This causes the amount of greenhouse gases in the atmosphere to increase, warming the climate. Deforestation also contributes to the increase of greenhouse gas emissions, as logging releases carbon dioxide absorbed by the trees and the soil into the atmosphere. Other sources of emissions include nitrogen fertilizers used in agriculture and increased livestock production, as cows and sheep produce large amounts of methane as part of their normal digestive processes.

## WARMING IS CHANGING NATURE AND HUMAN LIFE

Climate change is a serious global phenomenon. It can no longer be stopped completely, as the emissions that we have already caused will continue to warm our atmosphere for hundreds of years to come. The average global temperature of the Earth has already increased by 0.85 °C since the end of the 19th century. Scientists estimate that a global increase of 1.5-2 °C since the pre-industrial era could have dangerous and even catastrophic consequences. The global average temperature could rise by a dangerous amount already by 2050.

Global warming is already affecting the lives of people around the world. Its consequences can manifest themselves in various ways in different parts of the world. Low-lying coastal areas and entire island states may become submerged as the surface of the oceans rises with the melting of the glaciers. Hot and dry areas may become even more difficult to inhabit. Other extreme weather events, such as heavy rains and storms, may also become more prevalent and severe. Together with shrinking habitats, the over-consumption of natural resources and over-hunting, climate change has also led to the ever-increasing loss of biodiversity. The rate of extinction of different species has increased a hundredfold in recent centuries. This phenomenon is called the sixth mass extinction. With global warming, certain species may also spread to new habitats.

The effects of climate change are not limited to nature. Heat-related deaths and the prevalence of water-borne diseases have increased in certain areas. Damages to property, infrastructure and human health lead to great expenses for the economy and societies. The pursuit of livelihoods such as agriculture, forestry, tourism and energy production may become significantly more difficult as natural conditions change. The competition over limited natural resources exacerbates conflicts between people and communities and may force people to become climate refugees.

## CLIMATE CHANGE IN THE SOUTH AND THE NORTH

Climate change raises the question of who has caused the phenomenon and who has to suffer from it. This is called climate justice. In order to achieve climate justice, everyone in the world should be able to live a decent life, even as the climate changes.

From the point of view of climate justice, the consequences of climate change are distributed unevenly. In the poor countries of the Global South, the so-called developing countries, which have played a minor role in the generation of greenhouse gas emissions, the right to food, water and health, for example, is being jeopardized by climate change. The countries of the Global North, the so-called industrialized

countries, on the other hand, have historically caused the vast majority of global emissions. Even today, they account for more than half of the annual global emissions, even though they are home to only a fifth of the world's population. However, in the countries of the Global North, climate change can be a small or invisible problem from a local perspective and in people's daily lives. Many of the consequences of global warming, such as reduced snowfall, extended periods of hot weather, and longer growing seasons in the North, may even be seen as positive things. That is why people living in the North may find it hard to believe how severe a problem climate change really is.

Due to the rapid population growth and industrialization of the countries in the Global South, the amount of greenhouse gas emissions they generate is increasing. Emissions are also boosted by the consumption happening in the North, as much of the goods and materials used in the North are manufactured in the South. It is estimated that in 2025, the emissions caused by the Global South will account for about half of global emissions. Emissions continue to grow in many countries in the North as well. The responsibility for mitigating climate change lies with all countries. However, the poor countries of the South do not have similar capacities to prepare for and adapt to the phenomenon as the rich countries of the North have. That is why it is important for the North to support the poorer countries and take global responsibility for climate actions.

## CLIMATE ACTIONS CURB EMISSIONS

In order to limit the most severe consequences of climate change, the international community is committed to mitigating global warming. Almost all countries in the United Nations committed themselves to the Paris Climate Agreement (2015) and its goal of slowing down the climate change and limiting the temperature increase to 1.5 degrees above the pre-industrial level. The agreement does not contain any emission reduction obligations, as the countries are committed to setting and achieving these obligations themselves. Climate actions in poor countries are supported by funding. The achievement of the ambitious 1.5 degree goal will be assessed every five years from 2023 onwards.

If we want to curb global warming, we will have to make major changes to our lifestyles. From a cultural perspective, a shift from a people-centred worldview to an outlook that takes the environment and other species better into account is necessary. In practice, this means limiting consumption, reducing emissions and the use of fossil resources, as well as protecting nature's own carbon sinks, such as forests, the seas and the soil. Action needs to be taken in the industry, transportation, construction, food production and housing sectors. Legislation, taxation, subsidies and good community planning can be used to implement these actions. Developing new products and services and raising climate awareness through education and extensive communication are also important.

Ordinary Europeans also need to change their everyday habits, especially when it comes to consumer choices regarding e.g. transportation, housing and food. The consumer's carbon footprint, i.e. the amount of greenhouse gas emissions caused directly or indirectly by consumer choices, averaged 7.2 tonnes per person in the EU in 2018. In many prosperous EU member states, the number is even higher: for example, the carbon footprint of an average Finn is more than 10 tonnes. These figures are high compared to the global average of approximately four tonnes. In order to achieve the goals of the Paris Agreement and the emission reduction targets set by the countries themselves, the carbon footprint must be significantly reduced in many countries. In a country like Finland, the household carbon footprint should be decreased by as much as 70 percent compared to the year 2016.

## LET'S ACT TOGETHER!

Climate change is a common problem. Addressing it requires action from states, both individually and collectively, from local governments, companies, various communities and citizens. Listed below are some actions that different parties can take and are taking to mitigate climate change. The examples are from Finland. What is or could be done in your country?

**States and the international community**

States are responsible for creating national climate strategies, and international and regional communities are responsible for drawing up their own strategies. Key actions in the strategies include

- setting binding climate and emission reduction targets
- abandoning fossil fuels in energy production and preferring renewable energy sources
- supporting climate-friendly companies and regulating the operations of high-emission companies through taxation, for example
- strengthening the Parliament's and citizens' opportunities to participate
- limiting excessive logging and using legislation to protect carbon sinks, such as forests and wetlands.

**Municipalities and counties**

Municipalities and counties are responsible for implementing many of Finland's national climate measures. Finland's largest urban municipalities have also actively developed their own climate strategies and set emission reduction targets. In smaller, more rural municipalities, climate activities are often guided by regional climate work. Important practical measures to curb climate change include:

- reducing energy use and making its use more efficient
- closing coal-fired power plants and transitioning to renewable energy in energy production and public services
- reducing the need for mobility and preparing for changing weather conditions through the planning of community structures, land use and construction
- supporting public transport, cycling and walking, especially in urban areas
- supporting and offering plant-based food in public services
- offering climate education for residents
- taking climate aspects and sustainability into account in public procurement.

**Companies**

The relationship between companies and climate change and its mitigation is twofold: Manufacturing products and services often generates emissions and is therefore harmful to the climate. On the other hand, companies may be introducing new, more climate-friendly alternatives on the market. Actions that companies can take to mitigate climate change include:

- being energy-efficient and reducing emissions in the company's own operations and striving towards carbon neutrality
- favouring renewable energy in production and services
- favouring climate-friendly materials and using them efficiently
- developing climate-friendly products and technologies.

**Communities**

Communities include e.g. expert organizations (agencies, universities), NGOs and parishes. Communities have several roles to play in the mitigation of climate change:

- producing information on climate change used e.g. as a basis for legislation and for building a sustainable society (e.g. universities, the Finnish Environment Institute)
- developing and promoting climate-friendly livelihoods (e.g. Natural Resources Institute Finland)
- preventing harmful emissions through e.g. permits (Regional State Administrative Agencies)
- training experts to take climate action (universities)
- advocating and lobbying for climate action (organizations such as WWF and Greenpeace)
- involving citizens in climate action and advocacy through campaigns and events (e.g. the Coal-free Finland joint campaign for organizations, Fridays for Future youth movement)
- climate education for citizens.

**Households**

In Finland, household emissions fall into four main categories: transportation (30%), housing (25%), food (20%) and other goods and services (25%). You can reduce your emissions by making simple, every-day consumer choices. Good ways to do this include:

- reducing household energy consumption by e.g. lowering indoor temperature, improving energy efficiency, reducing hot water consumption, not using fossil fuels for heating, and favouring renewable energy as an energy source for your home
- favouring public transport, cycling and walking instead of private motoring and flying
- favouring climate-friendly vegetarian, seasonal, local and organic food
- reducing unnecessary consumption, sharing goods and making purchases only when there is an actual need
- investing responsibly in companies, measures and carbon sinks (e.g. forests) that help mitigate climate change.

**Active citizens**

Individuals can do much more than just change their consumption habits to mitigate climate change. By being active in their community and society, everyone can demand for and support actions that mitigate climate change. Ways of active citizenship include:

- citizens' initiatives concerning emission reductions and other climate actions (e.g. the Avohakkuut historiaan initiative, “Make Clearcutting History”)
- writing opinion pieces and appealing to decision-makers and companies
- organizing demonstrations, marches and events demanding climate action (e.g. climate marches, climate strikes)
- working with and supporting organizations/movements that work on climate issues
- influencing your own communities (e.g. schools, parishes, housing associations, trade unions)
- voting for candidates committed to climate goals in upcoming elections

## SUMMARY

- **Climate change is about the intensification of the greenhouse effect.**
- **Human-induced climate change is caused by over-consumption and the use of fossil fuels.**
- **The effects of climate change can be seen in nature as well as in people's lives.**
- **The responsibility and effects of climate change are globally unevenly distributed.**
- **Mitigating climate change requires us to make major changes to our lifestyles.**
- **Everyone can do their part in mitigating climate change.**

# 2

# WHAT IS CLIMATE EDUCATION?

Teaching and learning about issues related to climate change is called climate education. In many countries, the most well-known climate educator is the school system, but climate education can also take place during one's leisure activities and in many other environments. In addition to schools, many other parties also provide climate education: the media, workplaces, companies, organizations, several leisure activity providers, peers, etc. Learners can be of all ages.

## FROM ENVIRONMENTAL EDUCATION TO CLIMATE EDUCATION

The roots of climate education go back to environmental education. Environmental education refers to all kinds of learning, teaching and upbringing that is in some way related to the environment. Internationally, the concept of environmental education has been used since the 1960s. Related concepts include e.g. sustainability education and global education.

Like environmental education, climate education also examines environmental issues and a person's own relationship with the environment – in this case, with climate change. Environmental education also provides knowledge and skills that help learners act responsibly and take a stand for the environment. Climate education aims to strengthen the learner's environmental responsibility: the goal is for the learner to realize that they have an important role to play in environmental issues, and that environmental issues are important to them.

In traditional environmental education, the methods of education have often been very concrete. Groups of learners have taken a trip to the surrounding environment, identified environmental problems found there – such as polluted waterways – and found ways to solve these problems. These kinds of methods are poorly suited for climate education due to the massive scale of the problem. For example, it is possible to observe weather conditions with a group, but, given the time resources available, it is difficult to notice changes that take years to manifest. Finding solutions may also be challenging. As a phenomenon, climate change is slow and difficult to address for all of humankind, as the cause-and-effect mechanisms behind it are made of long and complex chains.

Climate change is a special problem also because of its holistic nature. As a phenomenon, climate change affects nearly every aspect of life. It cannot be explained only through natural science, as it also contains social, societal, cultural and ethical dimensions. That is why climate education is not limited only to environmental education. Climate education should be done in a multidisciplinary manner by different educators and experts in various fields.

## THE BICYCLE MODEL SUPPORTS CLIMATE EDUCATION

Researchers familiar with environmental and climate education have developed a model for multidisciplinary climate education called the Bicycle Model on Climate Change Education. The model describes the aspects

that climate education should pay attention to. Just like a bicycle, climate change education requires all of its components to function and achieve its goal. However, each of the aspects is also important in itself.

**The wheels** represent the knowledge and thinking skills required to understand climate change. Without them, you cannot move forward. People need to learn media literacy and critical thinking to process information, because there is so much information available about climate change. The amount of information should not be an end in itself, but it should be used to help create an understanding of the subject through analysis, for example.

**The frame** represents the learner's values, identity and worldview that the knowledge and skills provided by climate education are attached to. It is difficult to influence one's values and worldview through individual activities. Still, it is important to question the learner's habits and offer them active roles in addressing climate change.

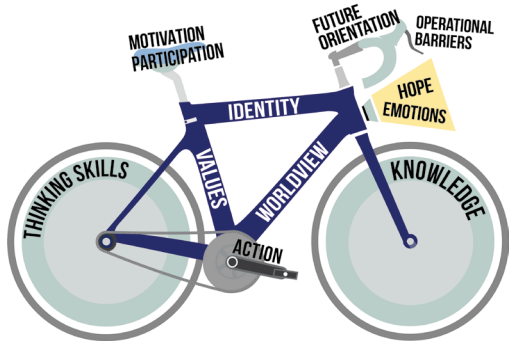
**The chains and pedals** represent the actions we can take to curb climate change. The knowledge and skills learned in climate education take shape through actions and practice. Through practice, we can learn e.g. how to curb the emissions that we generate. Real-life solutions and actions allow even the youngest of learners to take up an active role in climate change mitigation.

**The saddle** represents the learner's motivation and participation. In order for climate education to be motivating, climate change should be portrayed as clearly as possible and as a matter that affects us all: because people have built the society, they can also change it. The learner's experience of inclusion supports self-confidence and belief in one's own opportunities to influence things.

**The brakes** represent the operational barriers related to climate-friendly activities: what are the barriers slowing people down and preventing them from taking action? These barriers can be humane and stem from e.g. a desire for comfort. These barriers may also be created by structures and external constraints, such as the lack of public transport connections. By considering these barriers together, we may identify barriers that can be dismantled.

**The lamp** shows the way forward and represents not only the light of the future, but also other emotions. There are many bleak visions of the future associated with climate change, many of which are unfortunately quite likely. It is no wonder that many learners feel anxious, hopeless and discouraged in the face of climate change. That is why hope for the better is vital. Dealing with these difficult emotions together may also help ease the burden.

**The handlebar** is used to steer the bike to the desired direction. The handlebar represents futures education related to climate change, i.e. reflecting on and coming up with different visions of the future. Conceptualizing the future direction and learning how to make difficult and uncertain decisions are essential skills in mitigating climate change.




**The Bicycle Model on Climate Change Education illustrates the various aspects of climate education. (Image: Cantell, H., Tolppanen, S., Aarnio-Linnanvuori, E., & Lehtonen, A. 2019)]**

## CLIMATE EDUCATION TAKES US TOWARDS A MORE SUSTAINABLE PLANET

Climate education, like climate change, is not an easy topic for an educator. There are many misconceptions and prejudices related to climate change. Mitigation measures, in particular, evoke strong emotions and lead to heated social debate. There are rarely solutions to climate change that everyone would be happy with.

Climate change is largely about a crisis of worldview: as human beings, we must abandon our current worldview, which is based on consumption and fossil resources, and move towards a new, more sustainable way of thinking and living. Many of the new, more sustainable ways of living touch on sensitive subjects such as food, consumption habits and transportation. There are many meanings and acquired benefits related to these subjects, which are not easy to give up due to climate change. It may also be difficult for us Europeans to conceptualize our own standard of living on a global scale. It is more common to compare one's own consumption habits to the habits of one's well-to-do neighbour than, for example, to the habits of an average citizen of India, whose carbon footprint is only a fraction of that of the average European.

Climate education plays a vital role in our transition towards a more sustainable world. A skilled educator can get the learner to critically examine their own lifestyle and values and consider the need to change them. For an educator to succeed in this, they need to be sensitive to the learners' experiences, as well as the beliefs and meanings that they associate with these experiences. Climate education also offers alternative ways to do things. It motivates to take action and to become an active citizen, not only at the individual level, but also on a larger scale.

### SUMMARY

- **Climate education is about learning and teaching about issues related to climate change.**
- **The roots of climate education go back to environmental education.**
- **The complex nature of climate change calls for multidisciplinary climate education.**
- **The Bicycle Model on Climate Change Education illustrates the various aspects of climate education.**
- **Climate education teaches people how to be responsible and motivates them to take action.**

3

# CHILDREN'S CLIMATE EDUCATION IN LEISURE ACTIVITIES

Climate change is one of the great challenges of our time, and it is increasingly present in our lives. Young people and children, even small ones, encounter climate-related issues in the media and in their everyday lives more and more often. Climate change often causes anxiety and other difficult feelings in children and young people. The anxiety caused by climate change is understandable: future and growing generations will have to live with climate change all through their lives.

Considering this growing need, there is still little climate education available for children and young people. That is why it is important to talk about climate change also outside of school and home. Children and young people have the right to be informed, to talk about their feelings caused by climate change, and to take part in mitigating climate change now. In this case, silence is not golden. Being silent just makes the child feel that the adults don't know or don't care.

This chapter looks at how climate issues can be discussed with children and young people in an age-specific manner and how climate education can be integrated into leisure activities.

## ASK THE CHILD TO TAKE PART IN THE CONVERSATION

When providing climate education for children and young people, it is the adult's task to be supportive, so that the child can share their thoughts and feelings related to climate change. The adult should provide the child with clear, fact-based information, correct any misunderstandings, and answer their questions honestly. At the same time, the adult should avoid inciting panic in the child by painting a gloomy picture of the future.

What we feel and think is very much related to the way we handle the issue with others. In order to be able to discuss climate change with a child or young person, it is important for the instructor to critically examine their own views, feelings and beliefs related to climate change in advance. Everyone should be prepared to update their knowledge base when necessary, as there are many misconceptions surrounding climate change. One of the most common of these is the role of recycling: Recycling reduces the amount of rubbish in nature and is good for the environment in many ways. However, contrary to popular belief, recycling plays only a small role in mitigating climate change. For the climate, it is much more important to e.g. increase the amount of plant-based food you eat at home, or start using renewable energy instead of fossil energy.

When it comes to factual matters, it is perfectly fine to say that you don't know yet. You can also find more information together with the child. It is useful to ask the child about their previous knowledge and be open to learning new things yourself. Climate education is often a two-way process where knowledge is conveyed also from the child to the adult.

## ADULTS PROVIDE HELP AND SUPPORT

Climate education is not just about conveying information or talking about concepts, but it is also very much about values education. Values education becomes emphasized especially among the youngest of learners. An integral part of values education is to rouse children and young people to reflect on our own habits and lifestyles, which are accelerating climate change in many ways. The child's position within the family should also be taken into account: The set of values surrounding the child when growing up is not constructed by the child themselves. The possibilities of a child or young person to influence the consumption choices of their family are often very limited. However, depending on the family, the child's wishes and opinions may matter when it comes to e.g. choosing what the family should eat or where they should go on their summer holiday.

Learning how to process one's emotions is also an important part of climate education. Perceiving the complexity and injustices of the world can give rise to anxiety and hopelessness in a growing child. When talking about climate change, you should ask the child or young person how they feel about the topic. It is important to validate the child's emotions and give them space. You should put your feelings into words and encourage the child to do the same. For example, you can tell the child: "I understand that climate change distresses you. It distresses me too." When it comes to climate change, all kinds of emotions are acceptable, including anger when asked to process the matter constructively.

Climate change is a topic that is difficult also for adults to deal with. Talking about it with children and young people may be especially difficult. Expressing your emotions and putting them into words in front of the child is completely acceptable. Echoing the child's feelings about climate change is important also because it helps prevent the formation of generational gaps around the topic. However, take care not to despair in front of the child, as it is the adult's responsibility to create a sense of security for the child.

After discussing difficult issues or feelings, it is a good idea to do something holistic with the child. This helps you focus your emotional energy in a constructive manner. A good solution is to go outside together. Moving around in nature increases your resources and strengthens the bond not only between people, but also between people and the rest of nature.

## ACTIONS CREATE HOPE

One of the most important tasks for adults in climate education is to nurture hope. That is why it is important for the instructor to emphasize things that we can do and are doing to help mitigate climate change. These things are listed in Chapter 1. Offering alternative ways to act is also an essential part of values education. You can ponder together with the child what we can do and how we can take responsibility for our own actions and the actions of others. With slightly older children and young people, you can also think more broadly about how we can build a society where people take responsibility together. Young boys, in particular, may not perceive climate change as something that affects them personally, and climate change and the ways to mitigate it can seem distant. That is why it is important to look for ways of working that are as close as possible to the child's or young person's own world of experience. Giving the child different concrete tasks to do is a good way for them to learn responsibility. For example, you can ask the child to come up with a camping destination that can be reached by foot or bicycle, or to find a climate-friendly recipe for their cooking club.

It is important to inform the child about how they can make a difference. However, be careful not to heap guilt on the child or place too much responsibility on them. It is important to emphasize that the child can and should make a difference, but that the primary responsibility for combating climate change lies with the adults. A child should have the right to be a child and also enjoy the items, hobbies and other things that are important to them and made possible by their standard of living – just like adults do.

## MAKING CLIMATE EDUCATION A PART OF YOUTH ACTIVITIES

At school, discussions on climate change can be very fact-oriented. Leisure activity instructors should give some thought to the way they approach the topic. Talking about climate issues should not feel forced or burdensome, so that the children and young people will still want to take part in the activities. Camp and youth activities offer good facilities for addressing climate issues, as the activities are primarily voluntary and meaningful to the children.

Leisure time spent with children often involves a variety of activities that can be done together, such as creative activities, cooking and playing games. Integrating climate issues into already familiar activities is easy, and doing so does not require huge resources. Art can be used to address feelings related to climate change, to envision different futures, to take a stand, and to share information with others. Through cooking, children and young people can learn climate-friendly recipes, get to know new foods, and think about the various meanings associated with food. Functional activities can include activities such as greenhouse effect tag, which are fun, but can also teach children new things. You can also ponder together how climate-friendliness could be realized in your club room and in your practices.

Excursions to different destinations also provide opportunities to address climate themes. Forests and other natural environments are valuable in building a relationship with nature. In these environments, children and young people can reflect on the changing of the seasons or observe species that people have not seen before or are unlikely to see in the coming decades. When going to the store or shopping centre, you can reflect on climate-friendly choices, overconsumption and consumption-related issues in general. Visiting a climate demonstration for children and young people or the municipal hall offers an opportunity to learn more about different ways of influencing. When choosing your destination, you should also think about how you are going to get there. For example, if you have to make a long journey by car to get to the forest, it is a good idea to consider the emissions caused by the car trip and weigh them against the importance of the excursion in e.g. strengthening the children's relationship with nature. For longer excursions, you may also consider travel compensations.

You can organize climate theme days at camps, during which children and young people can learn about climate change and sustainable living from different perspectives. Keep an open mind when trying out different kinds of new activities. Remember to pair discussions and facts with functional and fun activities. You should plan the activities around exercise and doing things yourself.

In international activities, the climate theme provides opportunities to learn from other cultures and, in some cases, to conceptualize one's own standard of living. The climate theme is also an example of a shared problem, which encourages people towards global solidarity. You can reflect together on e.g. how climate change is visible in different countries and what kinds of climate actions different people can take. You can do these activities when meeting face-to-face, but also internationally at home by utilizing electronic connections. It may also be interesting to have a virtual meeting with another group of children within the same country.

## CHILDREN COME FROM DIFFERENT BACKGROUNDS

Leisure and hobby groups often have children of different ages from different schools. This creates its own challenges for climate education. The instructors may not be aware of what the children already know about the subject and how it has been handled in their schools, for example. Different teachers may also have different approaches to the issue. Some children may hear the same things over and over again without fully understanding it. Some way of mapping out the knowledge level of the learners may be helpful, especially if you have several sessions planned. Instead of teaching new things, you can also focus on reviewing and gathering information acquired at school and elsewhere. Because of the age differences, instructors need to be aware of the varying developmental stages of the children. Instructors must also be able to customize the tasks and instructions when needed so that they are appropriate for everyone, regardless of age. This way, talking about climate issues is meaningful and rewarding for everyone.

In children's climate education, sensitivity towards the socio-economic differences within a group becomes emphasized. There may be children from low-income backgrounds and from better-off families working together in the same group. Some children may live in small flats with families that cannot afford a car or to travel abroad, while others children's families may live in large detached houses, own several cars, and travel regularly. This means that the need to change one's lifestyle or give something up may be greater in some homes than in others. You should talk about the feelings associated with giving something up in an open and understanding manner, as they can lead to strong reactions. It may not be easier for a child from a low-income family already living quite sustainably to accept the message of limiting their consumption than it is for a child from a more affluent family: children from low-income families may also dream of a future where they have more money and material things.

## DON'T BE AFRAID TO EXPERIMENT

In leisure activities, the instructors are often voluntary or part-time employees. Their example is important to the children: the children may see the instructors as role models of active people who care about and work for something that is important to them.

Few have any prior professional knowledge on how to deal with climate issues. They may have limited time to familiarize themselves with new things. However, you don't have to be an expert on climate issues or even strive to be one in order to talk about them with children and young people. If you feel insecure, it is perfectly fine to approach the subject from your own perspective and focus on one or two familiar aspects, such as food or mobility. The other educators can help you and provide their own views on the matter. The instructor can also aim to create a safe space where everyone has the chance to share, reflect on and address their feelings and thoughts related to climate change together. Narrowing down the subject may also be important for the instructor's own well-being.

There are plenty of ready-to-use materials and support available for dealing with themes related to the climate and sustainable living. You can find some of these materials also at the end of this guide. Some of the materials are designed so that the instructor does not need to possess much prior knowledge on the subject – merely being interested is enough. In many cases, the same assignment can be customized to suit both younger and older children. Be sure to tell the other instructors of the materials as well.

## CHECKLIST FOR LEISURE ACTIVITY INSTRUCTORS

1. **Reflect on your own knowledge and feelings. Be prepared to learn new things.**
2. **Listen to what the child has to say and ask them to take part in the discussion.**
3. **Be honest and clear. Do not scare the child.**
4. **Validate the child's emotions.**
5. **Express a sense of security and echo the child's feelings on the subject from an adult's perspective.**
6. **Give practical examples of what people are doing to mitigate climate change. What could you do?**
7. **Incorporate climate change into familiar activities.**
8. **Address climate change from your own perspective. You don't need to know everything.**

*(Adapted from Panu Pihkala's blog post "How to talk to children about climate change?")*

# 4

# ACTIVITIES

This section contains exercises developed for the Weekends for Climate and the Liikkuva luontoleiri projects, as well as exercises borrowed from elsewhere that you can use in your own activities.

The activities are divided into six themes: Climate, Energy, Food, Sustainable Consumption, Personal Relationship with Nature, and Society and Making an Impact. Many of the activities are also suitable for shared virtual sessions between groups from different countries. These activities are marked as symbol 🌍. Several activities can also act as climate challenges that the young participants can give each other. These activities are marked with the symbol 🤝. The instructor may either pick and choose something from each theme, or focus specifically on one or two themes.

The selected themes strengthen the children's understanding of climate change as a phenomenon and help give shape to climate change and sustainable living through various everyday aspects. The themes also encourage participants to process their emotions related to climate change and the environment and place them on the path of active citizenship. In international collaboration, the activities offer an opportunity for young people to work with their international peers on a shared global issue, which builds global solidarity.

Each activity contains information on how much time you should allocate for it, what materials are needed, and the age of children it is suitable for. There are several versions of some of the exercises. You can choose the one that is best-suited to the age and skill level of the group. The vocabulary in the exercises has been chosen primarily with the target group of 12–15-year-olds in mind, but they can be customized for younger participants as well. In general, customizing the exercises to suit the needs of your own group is highly recommended.

In virtual collaboration, that is in collaboration between two or more youth groups in different countries or areas, the idea is to utilize the activities in sessions both within one's own group and with the peer group(s) by using virtual connections. There are two ways to implement this:

- **FORMAT 1.** Groups from different countries/areas hold events at the same time and do activities partly within their own group and partly online with the partnering group.
- **FORMAT 2.** Groups from different countries/areas hold meetings separately at different times. During their separate meetings, the young people can come up with different environmental video challenges, competitions, and/or tips on how to be more environmentally/climate-friendly or how to take action for the climate, and then challenge the young people from other countries/areas to do these challenges.

Printable materials for the exercises can be found on the Weekends for Climate project's website at weekendsforclimate.fi. People active in Pinskut and Nuoret Kotkat can also find the materials in their organizations' own cloud services. Exercises requiring special materials are marked with "Appendix". The appendices can be found on the project's website and in the cloud services. The files are numbered, making them easy to find.

**We wish you many happy moments with these exercises!**

ACTIVITIES

# CLIMATE

Climate change is a broad and complex concept. Climate change is also visible in our everyday lives in one way or another, if we only pay attention to the right things. To be able to understand this, it is important to have the basic scientific knowledge about how the Earth functions and how its climate changes. The activities in this section help to make climate change a more easily understandable and approachable concept by introducing practical ways to approach the subject.

## Climate Change Mind Map

| Goal | Time | Materials | Age |
|---|---|---|---|
| Mapping out the knowledge and attitudes of the group, defining climate change terminology | 15 min | Flipchart, coloured pencils | Suitable for all ages |

**Instructions:** Take one flipchart paper and write “Climate Change” in the middle as the central theme. Next, add four branches around the central theme with headings “What?”, “Why?”, “Consequences”, “Solutions”, “Decision-makers”. If you come up with other interesting viewpoints, add those too! You can use our climate glossary as inspiration.

Together, discuss the meaning and consequences of climate change. Add branches and write down your thoughts and ideas around the appropriate heading. You can have the discussions either with the whole group or in smaller groups.

Discussion: Go through together what climate change is and what are its consequences. Why is it important to act right now? Continue the discussion by contemplating what can be done to tackle climate change. What kind of thoughts and feelings are you having? Also make sure that everybody understands the difference between the terms weather and climate, especially in English.

You can also discuss climate justice. Does climate change affect everybody equally? Who are the main contributors to climate change? What do we mean when we talk about the “Global North” and the “Global South”? How is climate change linked to human rights?

## Our Wobbly Earth

| Goals | Time | Materials | Age |
|---|---|---|---|
| Specifying the terms related to climate change and the carbon cycle | 20–40 min | A painted Jenga set, cards (Appendix 1) | Suitable for all ages |

**Instructions** The objective of this game is to help the players understand the significance of the balance between carbon emissions and carbon sinks in the carbon cycle system and, consequently, in climate change. Playing the game helps the players realize that even the smallest actions do matter.

You will need blocks from the game Jenga, or other similar blocks. You can also make your own blocks by using empty cartons or any kind of blocks you might have. Next, follow the instructions and paint the blocks in different colours to represent the different parts of the carbon cycle. If possible, use high-gloss paint or varnish the blocks after painting them. If using cartons, it's helpful to paint only the ends and two opposite sides (the ones with writing) of the cartons so that the cartons move more easily when playing the game.

Instructions for painting the blocks (can be done beforehand or as part of the activity): For every set of blocks, you will need a minimum of: 6 green plant blocks, 6 black traffic blocks, 8 blue ocean blocks, 6 purple energy blocks, 5 brown earth blocks, 4 red factory blocks, 5 yellow atmosphere blocks, 5 orange transportation blocks, 3 pink animal blocks.

Next, print out the required number of cards. Build the Jenga tower before starting the game. Every layer consists of three blocks that have a little gap between them. Build the base of the tower with the green plant blocks and the blue ocean blocks. The bottom layer will have one green and two blue blocks. The next layer will have two green and one blue block crosswise on top of the lower layer. Continue building the tower with the blue, green, brown, yellow and pink blocks. At this stage, don't use the black, purple, red or orange blocks.

Lay the cards face down on the table.

Next, start the game:

- Introduction: We will play a game about nature's role in combating climate change and how the actions of humans contribute to climate change. (Remember to introduce the function of the different blocks by reading the explanation card.)
- Start the discussion with the following questions: Do you know what causes carbon emissions? And, what absorbs carbon dioxide?

Next, tell them that human actions, such as traffic and manufacturing, emit carbon dioxide.

- Solar energy absorbed by the Earth's surface radiates back into the atmosphere as heat. As the heat makes its way through the atmosphere, carbon dioxide absorbs much of the heat in the atmosphere and thus causes global warming. The nature blocks are needed because they absorb carbon dioxide and thus decrease its amount in the atmosphere.

Next, each player takes a card in turn. The card instructs the players to add or remove certain blocks. Unlike Jenga, you can also collaborate in the game – this highlights the fact that climate problems are not caused by an individual and thus can't be solved by an individual, but that everybody has their own role to play in combating climate change.

This game works best when max. six players play with one tower. There may be difficult terminology in the cards, so the facilitator can help players understand those terms.

Debriefing: What caused the tower to collapse? What kind of thoughts did playing the game provoke in you? Does the game's setup reflect reality? It's good to emphasize that climate change is a complex process, which is affected by multiple different factors, like the ones we saw when playing the game. The systems sustaining life on Earth are in a delicate balance with each other. Even though carbon dioxide is essential for all life, it is also the most significant greenhouse gas and causes climate change.

Source: Luontokoulu Haili, Tiina Lecklin. http://www.luontokoulut.fi/materiaalit/huojuva-maapallo/

## Climate Experts

| Goals | Time | Materials | Age |
|---|---|---|---|
| Getting to know the concrete actions that accelerate or combat climate change, learning facts about climate change | 20–30 min | A pawn (one is enough, but you can also play with several pawns), dice, cards (Appendix 2), the board (https://luonto-leiri.fi/files/Ilmasto-taiturit_pelilauta.pdf) | 9+ |

**Instructions** "Climate Experts" is a board game in which you collaborate with others to reach a more sustainable future. You can start by putting the game board together. The game can also be played as an outdoor activity without the board. This game includes the same questions as our True or False activity. It can also be played to review what you have learned on the second day of the camp.

There are three kinds of cards in the pack:
1. Cards about different climate cases, which instruct the players how to move their pawns.
2. Task cards, which give the group a common task to consider and contemplate.
3. Question cards, which include the True or False questions.

An easier version: You have a shared pawn to move. Each player throws the dice on their turn, and the shared pawn is moved accordingly.

A more difficult version: Each player throws the dice on their turn. The numbers determine which card is taken from the pack. The person who threw the dice will pick up the card and read it out loud. In the case of the question cards and the task cards, giving the right answer or completing the given task rewards the participant with two steps forward. Wrong answers or failing to complete the task lead to the player taking one step back.

All the tasks must be completed and all the questions must be answered in collaboration with the whole group. The right answer can be found on the bottom of the question cards, so the one reading the card cannot participate in answering the question. The goal is to achieve a sustainable future before the cards run out.

## Plan Your Own Ecosystem

| Goals | Time | Materials | Age |
|---|---|---|---|
| Understanding natural processes and putting this understanding into practice | 15–30 min | Paper, coloured pencils | 12–13 |

**Instructions** This activity can be done individually, in small groups, or in collaboration with the whole group. It can also be something that you can think about between your international groups or used by the participants as inspiration when they think about the challenges they want to give their international peers.

First, you can imagine that you need to leave the Earth to live in a spaceship for a while, without any external resources.

- What kind of things do you need to consider to be able to survive?
- What do you need to take with you when leaving the Earth?
- What kind of space and technology would you need so that you will have enough resources (food, water, oxygen, etc.) and materials? How can you imitate the environmental cycles (air, water, soil, etc.) so that you won't run out of these resources?

You can use your imagination and try to develop different kinds of solutions and technologies that don't even exist yet. You can go into more detail about different factors that are needed in order to preserve life and think about solutions that could actually work. At the end, everybody presents their plans and you can have a discussion about whether these plans would work or not in real life. Could these solutions also be adapted to help solve the problems related to our planet's carrying capacity?

## True or False? Facts and Misinformation About Climate Change

| Goal | Time | Materials | Age |
|---|---|---|---|
| Defining the terms, building a common knowledge base | 10–25 min | A list of true or false claims (Appendix 3) (possibly paper for showing the answers) | All ages |

**Instructions** The facilitator reads aloud claims about climate change (one at a time), and the participants answer whether the claim is true or false.

This activity can be executed by using different methods: To make the activity more action-based, you can divide the space so that one wall represents “true” and another represents “false”. The participants can then move from one side to the other, depending on their answer.

Another way to implement the activity is to give the participants two pieces of paper with “true” and “false” written on them. The participants can then show the appropriate paper to indicate their answer. The participants can also be divided into smaller groups, and the groups can come up with an answer together.

After each answer, it’s good to discuss the claim further and what makes it true or false. In addition, if there is variation in the answers, the participants can be asked to provide arguments on why they chose their answer.

Sources:
Center for Climate and Energy Solutions 2020.https://www.c2es.org/content/international-emissions/
Ertimo, Laura & Mari Ahokoivu 2019. Ihme ilmat! Miksi ilmasto muuttuu? Helsinki: Into Kustannus.
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Plan International 2019. https://plan.fi/sites/default/files/plan_images/ylakoulun_ja_toisen_asteen_ aamunavaukset.pdf Ulkoministeriö 2020. https://maailma2030.fi/kysely/

## Ecosystem in a Glass Jar

| Goals | Time | Materials | Age |
|---|---|---|---|
| Understanding natural processes and putting this understanding into practice | The whole time at the camp, several days | A big glass or plastic jar (transparent, with an airtight lid), plants, gravel or sand, water, soil, shovels | 12–13 |

**Instructions** Introduction: What is an ecosystem? What kind of things are needed in an ecosystem? What kind of ecosystems are there? What things are circulated in nature?

Next, follow these steps in order to create an ecosystem:

1. Put some gravel or sand on the bottom of the jar.
2. Put some soil (either purchased from a store or dug from the ground) on top of the sand/gravel.
3. Plant plenty of different kinds of plants into your ecosystem. You can first carefully pick them up with their roots intact from a meadow or roadside.
4. In order to create a functional ecosystem, you will need different kinds of micro-organisms, for example millipedes, snails, worms and isopods. They help maintain good soil structure.
5. You can add a couple of small insects that thrive in a smaller habitat amongst plants into your ecosystem (e.g. ladybugs). NB! Don't put any animals in the jars that will suffer in a restricted environment!
6. Lastly, the ecosystem needs watering. Water the soil enough for it to be moist, but be careful not to water it too much.

After the ecosystem is completed, close the lid so that it's airtight. Place the jar outside in a place where it can obtain enough light.

Observe your ecosystem for a few days. How is water circulated in your ecosystem? What happens to the plants? How about the animals?

When you have observed your ecosystem enough, or it seems that it's not prospering, empty the soil and the plants into a compost and release the animals back into their own environment.

This activity can also be done as an international collaboration. You can create your ecosystems during the camp and compare the systems from different countries. What is similar? How do they differ? You can also take your ecosystems back home and continue comparing them by using virtual connections. You can share pictures, short descriptions or videos of your ecosystems, for example.

Sources: http://www.naturalehti.fi/2019/02/06/ekosysteemi-purkissa/ http://www.ejippo.fi/teemat/luonto-purkissa

## Climate Action Bingo

| Goals | Time | Materials | Age |
|---|---|---|---|
| Understanding what actions can affect the climate change, enforcing one's own action-taking | 20 min | Paper, coloured pencils, rulers | 9+ |

**Instructions** Every participant draws a bingo card (e.g. 3x3 squares). For each square, write down an everyday climate action. The facilitator can provide examples if needed. Everyone plans their bingo card independently.

The participants can be encouraged to consider the following question: What kind of climate actions could be implemented in a young person's everyday life? Encourage them to think broadly about all the subjects you have discussed during the camp – climate actions include more than recycling and turning off the lights. For example, they can consider asking their parents to switch to a more sustainable energy option at home, or to make sure that their school is part of a local sustainability program.

The purpose is to take the bingo cards home and try to fill them by implementing these climate actions in their everyday lives.

There are two ways to implement this activity: The participants can either make the bingo card for themselves, or they can make one for their international peers for them to fill in by sending them a picture of the bingo card. Either way, they can share their progress on their joint discussion forums. Who is going to get the first BINGO? Of course, the overall aim is to fill the whole card!

## Trees, People and CO2

| Goals | Time | Materials | Age |
|---|---|---|---|
| Reviewing previous subjects, energizing, getting exercise | 10–20 min | - | All ages |

**Instructions** This energizer is a variation of Goblins, Wizards and Giants. There are two groups; in each round, one group will try to catch members of the other group. When someone is caught, they join the other group. In each round, each group decides on one of three roles (without telling the others). Then the groups form two lines facing each other. After hearing the signal, they "perform" their roles by doing the action specified below. The group whose role beats the other chases the other group to their side of the room (or a marked line outside) and tries to catch anyone they can from the other team. If both have chosen the same role, they have to go back into their groups to decide on a role again.

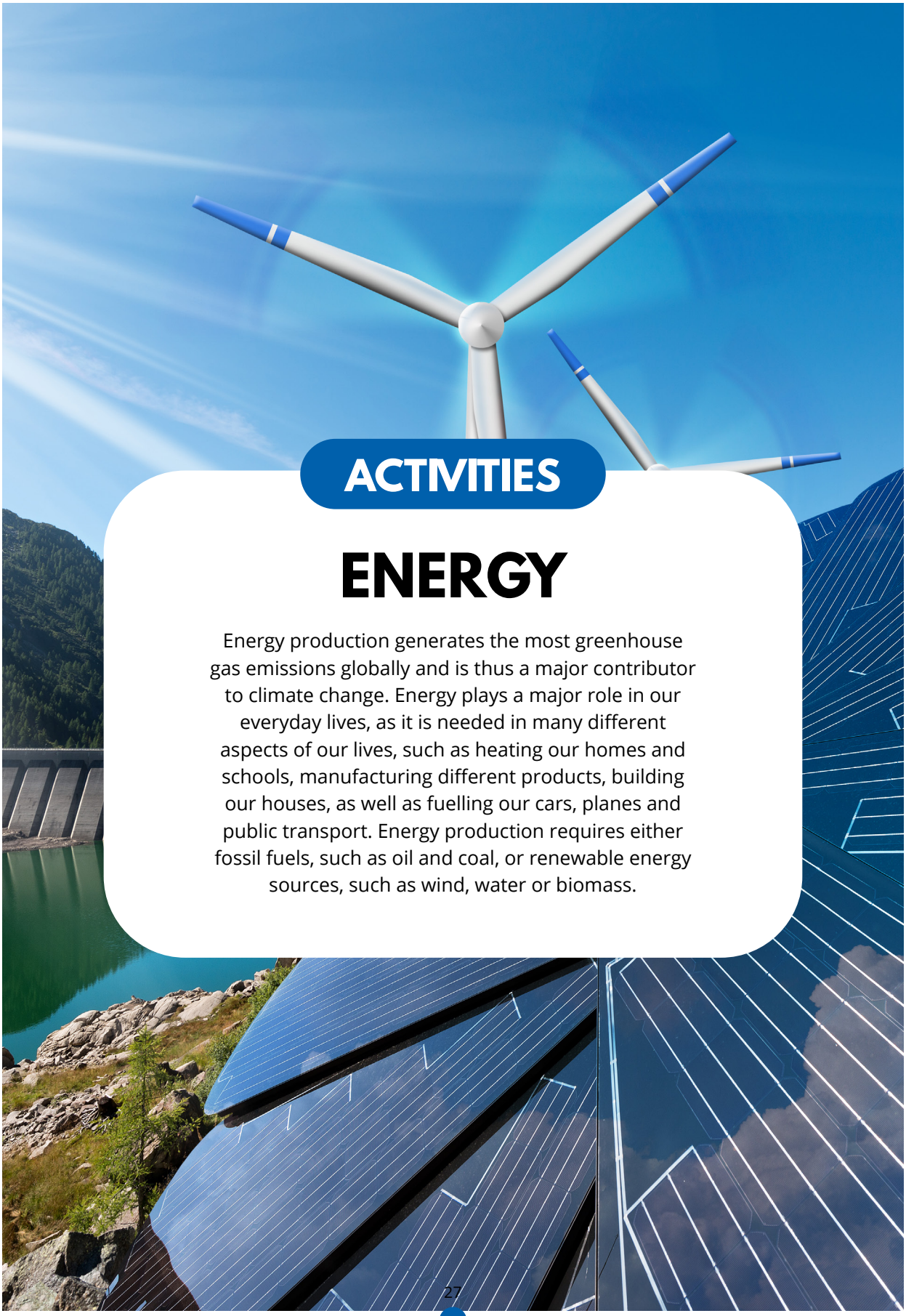
The three roles are: People, trees and CO2:
- People beat trees (by cutting them down)
- Trees beat CO2 (by sucking it up)
- CO2 beats people (by creating climate change).

Trees: swaying their arms above their heads

People: chopping down a tree with an axe

CO2: rising from the earth into the atmosphere (doing a 'star jump', i.e. jumping up with arms and legs spread wide)

Source: http://www.ifm-sei.org/files/up/energizers.pdf -> You can find other useful climate-themed energizers here.



ACTIVITIES

# ENERGY

Energy production generates the most greenhouse gas emissions globally and is thus a major contributor to climate change. Energy plays a major role in our everyday lives, as it is needed in many different aspects of our lives, such as heating our homes and schools, manufacturing different products, building our houses, as well as fuelling our cars, planes and public transport. Energy production requires either fossil fuels, such as oil and coal, or renewable energy sources, such as wind, water or biomass.

## Introduction to Energy Production

| Goals | Time | Materials | Age |
|---|---|---|---|
| Understanding the causes and consequences of energy production, defining the related terms, mapping out the participants' knowledge base | 10 min | (Paper & pencil) | 12–15 |

**Instructions** Have a discussion together about energy. You can either have a free discussion or draw a mind map similar to the one in the "Climate Change Mind Map" activity.

You can discuss, for example, the following questions:

What things come to your mind when you think about the term "energy"? Why do we need energy?

How is energy produced? How is energy linked to climate change? What is the difference between fossil fuels and renewable energy sources? Are renewable energy sources the solution to climate change? Why or why not?

You can also show the following statistics about the global energy consumption and its emissions. What is the role of human actions in the production of global greenhouse gases? You can also illustrate this by drawing a pie chart.

- Energy 72%
- Electricity and Heat 31%
- Transportation 15%
- Manufacturing and Construction 12.4%
- Other Fuel Combustion 8.4%
- Fugitive Emissions 5.2%
- Agriculture 11%
- Industrial Processes 6%
- Land-use Change and Forestry 6%
- Waste 3%
- Bunker Fuels 2%

Source:
Center for Climate and Energy Solutions 2020. https://www.c2es.org/content/internationalemissions/

## Home Energy Audit

| Goals | Time | Materials | Age |
|---|---|---|---|
| Realising how energy production is visible in our everyday lives, understanding the significance of our everyday choices | Homework + discussion 15–20 min | Home energy audit form (Appendix 4), or you can google a suitable home energy audit form for your country | All ages |

**Instructions** On the first day of the camp, you will receive a home energy audit form. You will fill in the form at home between the two camp days (appendix). On the second day, you will go through everybody's forms together and discuss what kind of an effect these answers have on your carbon footprint.

You can, for example, consider the following aspects:

- The more square footage per person you have in your living space, the more it affects your carbon footprint.
- What differences are there between different energy sources or different forms of heating?
- When it comes to housing, new houses are generally more energy-efficient that older houses.
- Why does taking a shower affect the energy consumption of your home?

Next, you can discuss your own possibilities to make an impact on your carbon footprint. Who makes the choices at your home, and what are these decisions based on? What kind of preconditions do people have when making these choices? How would you be willing to change your lifestyle to make it more climate-friendly?

## Energy Saving Campaigns

| Goals | Time | Materials | Age |
|---|---|---|---|
| Producing information about saving energy, enforcing the feeling of climate agency, practicing influencing | 15–40 min | Paper, coloured pencils | All ages |

**Instructions** Let's plan energy saving campaigns either individually or in small groups. Every individual/small group chooses one way to save energy and to decrease emissions at home/in school or in traffic (for example), and then creates a poster or a TV/radio campaign about it. You can then share those campaigns with the others.

This is also a great activity to give to your international peers as a challenge. You can ask them to create these campaigns and make a video about them. If they decide to make posters, they can also make a video in which they introduce those posters.

## ACTIVITIES

# FOOD

In this section, we talk about the significance of food in regards to combating climate change. Keep in mind that food can be a very sensitive subject, since there are many traditions and associations attached to it. It also plays a more significant role in our everyday lives than other climate themes. That is why it's important to talk about food themes in a sensitive and supporting manner, which is also why the following activities approach the subject by introducing a more climate-friendly diet in a positive manner with a sense of discovery. Food is also an interesting discussion topic between international peers when it's done respectfully and with an open mind.

## Ecological Rucksack of Foods

| Goals | Time | Materials | Age |
|---|---|---|---|
| Understanding the environmental impact of our diet | 10 min | Food cards (Appendix 5), blocks for illustration | All ages |

**Instructions** The Ecological Rucksack of Foods describes the amount of natural resources required throughout the whole process of getting the food on our plates. This includes, for example, growing, processing, packing and transporting the food. You can examine this Ecological Rucksack by using MIPS units (Material Input per Service Unit). They give you the numbers to determine the weight of the food in the ecological rucksack. The table below indicates the number of natural resources that the production, consumption and processing of certain foods require. The table shows the climate impacts converted into carbon dioxide emissions for the sake of comparability – food also has other climate impacts besides carbon dioxide emissions.

Playing the game: First, the facilitator places the cards on the table for everybody to see. The participants can then suggest the number of MIPS units this certain food gets in regard to its climate emissions. You can also discuss the reasons behind a certain food's low/high number. Why do some foods have heavier ecological rucksacks than others?

**Climate emissions of different foods:**

- Food kg CO2 GWP/1 kg
- Potatoes and root vegetables 0.3–1
- Bread 0.5–1.5
- Rice 1–2
- Tofu 0.5–2.5
- Salmon 3–5
- Chicken 3–7
- Pork 5–9
- Cheese 5–15
- Lamb 20–35
- Shrimp 6–40
- Beef 25–50

Source: YLE 2019. https://yle.fi/uutiset/3-10603217 35

## Best Food on the Planet

| Goals | Time | Materials | Age |
|---|---|---|---|
| The game's idea is to find the most responsible dish that is both eco-friendly and takes equality in the world into account | 20 min | WWF cards, printed | 10+ |

**Instructions** A card game by WWF to initiate discussions on sustainable food production and consumption. It includes 41 dishes for players to assess according to their various sustainability aspects, including their climate effect. Best when played in groups of 4–6 players. Playing the game: The cards are placed face down into piles, and each player gets one pile. Each player flips the topmost card of their pile. The players share their dishes and discuss which one is the most responsible. The winning card remains on the table, and the rest are put away. Continue one turn at a time, leaving one winning card per turn on the table. When the cards run out, everyone chooses the best among their winning cards, and the ultimate winning dish is chosen from them. You can find the cards and instructions here: https://wwf.fi/app/uploads/1/0/s/l2238m05iv9klk35u3u1zj/2018_ruokapelikortit_eng_a4.pdf?filename=Best%20food%20on%20the%20planet%20-%20playing%20cards.pdf

## Low-Carbon Menu

| Goals | Time | Materials | Age |
|---|---|---|---|
| Learning about eco-friendly ways to eat | 15–20 min | Paper, coloured pencils | All ages |

**Instructions** Setting up the activity: Let's have a discussion about food's climate impacts. What kind of climate impact do different foods have and why? The "Ecological Rucksack of Foods" is a good introduction to this activity. The facilitator instructs the participants to choose a certain number of low-carbon dishes and to plan and write down their own dream menu based on these dishes. You can also challenge the participants by providing them with a certain MIPS number that should not be exceeded in the menu. They can either use the ingredients found in the "Ecological Rucksack" activity, or find more information online. This activity can also be done in collaboration with your international partners, and you can combine foods from each of your countries to create a sustainable menu.

## Cooking Together

| Goals | Time | Materials | Age |
|---|---|---|---|
| Learning about climate-friendly ways to eat | 20–40 min | Ingredients, aprons, dishes, appliances, etc. | All ages |

**Instructions** The facilitator comes up with a sustainable dish for the group to cook together. For example, vegetable and lentil soups are good options. The facilitator acquires the required ingredients beforehand. First, discuss the chosen ingredients together: What do we have here? Why were these particular ingredients chosen? Are there some unfamiliar ingredients? You can feel, smell and taste the ingredients before you start cooking. Next, you can cook the meal together. You can also discuss your favourite foods and how you can make climate-friendly food taste good.

Another way to implement this activity is to have the participants from different national groups challenge each other to make their national foods more climate-friendly. This can be done especially when the different national groups hold their camps separately from each other, so that the other group can prepare beforehand. You should also take the skill level of the participants into account.

ACTIVITIES

# SUSTAINABLE CONSUMPTION

Our everyday consumer habits play a central role in what we as individuals and as parts of smaller communities, such as schools and recreational organizations, can do to combat climate change. In this section, we consider our own consumer habits in relation to the product life cycle. Considering a product's life cycle means examining a product's environmental impact in all the different stages of its production: from manufacturing the raw materials all the way to waste management.

## Consumer Behaviour

| Goals | Time | Materials | Age |
|---|---|---|---|
| Contemplating our own consumer behaviour | 10–15 min | - | All ages |

**Instructions** Let's discuss our consumer behaviour. First, you can start by talking about how often you buy a new phone. How many phones have you had so far? Do you think that you buy a lot of new things, or only a little? What drives us to consume (our friends, ads, influencers, etc.)? On what basis do you make your decision to buy something? Who in your family makes the decisions on what and where you buy things? What are the things you absolutely can't live without? What kind of consumer behaviour could you stop in your own life? Do you have a say in what is consumed in your family and how?

You can also go deeper by discussing the consequences of changing our consumer habits. What would the benefits of owning less be? In what other ways could we use different products besides owning them? Would you be willing to share a laptop, for example, and borrow it for a certain time period? Would you ever be able to give up your phone?

## Product Life Cycle

| Goals | Time | Materials | Age |
|---|---|---|---|
| Understanding the environmental impact of consumer products | 20–40 min | Items to be explored, cards (Appendix 6) | 12–15 |

**Instructions** How can we know where our products come from? Where can we get information about the environmental impact of our products? To find out, let's choose 1–3 everyday products for a closer discussion. It would be good if you had the actual items available, so that you can inspect them together.

Shorter version: In small groups, let's go through the different manufacturing phases and life cycles of three products, for example a smartphone. First, choose the cards that concern the life cycle of this particular product, and then place the cards in the correct order from the beginning of the life cycle to its end. Next, pick up the next item, pick the correct life cycle cards from the pack, and repeat the previous phase. Lastly, go through the answers together and have a discussion (questions below).

Longer version: Give each small group a product and its life cycle written on paper. Each group prepares a short performance of the life cycle, for example a video clip in the style of a short movie. A play or a comic are also good options.

Discussion:
- Was this new or familiar information to you?
- What kind of an impact do the different stages of a product's life cycle have on the environment and climate change?
- Why is it important to know the production chain of a product?
- What tools does considering a product's life cycle give us in combating climate change? What commodities are you able to buy second-hand? What commodities are necessities to us and why?
- Why is the age of some products so short? As consumers, what could we do about this?
- What do you think about the global responsibility of our consumer habits? What should we take into account and why?

## Advertising/Subvertising

| Goals | Time | Materials | Age |
|---|---|---|---|
| Contemplating your consumer habits, critical consumerism | 20–30 min | (Adverts/subverts to show as examples: https://eetti.fi/wp-content/uploads/2018/11/VASTAMAINOS_ENG_2018_WEB.pdf) | 12–15 |

**Instructions** Introduction: What are advertisements, and what is their purpose? Where do you see them? What effect do they have on your or your family's purchases? Is there a particular advert that has stayed in your mind? Why? Next, divide the group into small groups. The participants create subvertisements in their groups. Subvertisements are posters, **videos,** etc. that criticize the logic of advertising, over-consumption and/or the advertised product. The produced subverts will be presented to the whole group.

Discussion: What are the tools that advertising uses to affect consumers? Can you claim pretty much anything in advertisements? How can you know whether a product is worth buying based on the advertisement? Is knowledge about the product's sustainability easily available? What is greenwashing? What do you think about companies promoting themselves as sustainable and having campaigns about sustainability (such the Conscious line by H&M)? Can those be trusted?

## Recycled Arts and Crafts / Tuning Old Clothes and Things

| Goals | Time | Materials | Age |
|---|---|---|---|
| Understanding the concept of reuse in practice, being creative when recycling materials | 15–45 min | Different kinds of materials that are recycled, e.g. newspapers and magazines, napkins, wrapping papers, empty glass and plastic jars, cartons, metallic corks, scissors, glue. For tuning clothes: a clothing item, a needle, pieces of other fabrics, buttons, safety pins, scissors, fabric glue, etc. | All ages |

**Instructions** Recycled crafts can be planned according to the materials that are available. The important thing is that you need to get as few new items as possible for the activity and that the end product doesn't go into the bin after it's completed, but that it has a purpose and can be used when finished. For example, decorated pots for planting flowers etc. are good and easy crafting options. The participants can also be instructed to take a piece of clothing or some other object that they can tune to give them a new appearance or purpose. You can find useful arts and crafts tips here: https://www.weareteachers.com/earth-day-crafts-classroom-activities/

ACTIVITIES

# PERSONAL RELATIONSHIP WITH NATURE

Our motivation to take action for the climate and the environment is highly dependent on our personal relationship with nature and understanding its significance in our lives, including our personal well-being. Your connection to your own environment also helps you to deal with your feelings caused by climate change, even when these feelings seem overwhelming and difficult to process. In this section, we concentrate on observing our own nature environment and its effect on our own feelings.

## Nature Relaxation

| Goals | Time | Materials | Age |
|---|---|---|---|
| Cherishing our relationship with nature, being aware of our own feelings | 10–20 min | - | All ages |

**Instructions** This activity can be implemented if there is a possibility for outdoor activities. Everyone finds a nice place outside where they would like to relax for a moment. Everyone closes their eyes and observes their environment by using different senses. Participants can also observe their own thoughts and feelings calmly and with acceptance. Light discussion: You can discuss your observations related to your different senses, what you were thinking, and whether calming down was easy or difficult. However, it is important to allow the participants to keep their experience private if they want to; nobody is forced to share their experience.

## Peaceful Place Meditation

| Goals | Time | Materials | Age |
|---|---|---|---|
| Relaxation, processing your feelings, calming down your body | 10–15 min | - | All ages |

**Instructions** The facilitator encourages everyone to think about their favourite place where they feel safe and comfortable. The place can be in nature, but that is not necessary. Every participant closes their eyes and imagines their own peaceful place. The facilitator can tell the participants to look around their peaceful place, walk around a little, and to experience the place using different senses. What do you hear, feel or smell? The participants can also be asked to invite things to their peaceful place, which will make the place feel even nicer. The facilitator tells the participants to remember their own peaceful place and reminds them that they can always return to this place when they want to. At the end, the participants open their eyes and return back to the present.

There is no specific need for debriefing, but if you have extra time and the group is eager to share their experiences, they are of course free to do so. The most important thing is that the participants will remember that their peaceful place is a place that is exactly as they want it to be and that it includes only the things that they want it to include. The peaceful place is a place where they can always return to when they need a moment of calm or to relax their stressed bodies.

## Stress Buster Exercises

| Goals | Time | Materials | Age |
|---|---|---|---|
| Processing your feelings in a bodily way | 5–15 min | - | All ages |

**Instructions** The purpose of this exercise is to learn different ways to relax the mind and the body, such as deep breathing and releasing muscle tension.

Flower and Candle: This exercise encourages deep breathing, which is a good way to relax.
- Pretend that you have a flower that smells nice in one hand and a slow-burning candle in the other.
- Breathe in slowly through your nose as you smell the flower.
- Breathe out slowly through your mouth as you blow out the candle.
- Repeat a few times.

Lemon: This exercise releases muscle tension.
- Imagine that you are standing underneath a lemon tree.
- Reach up to the tree and pick a lemon with each hand.
- Squeeze the lemons hard to get all the juice out – squeeze, squeeze, squeeze.
- Throw the lemon peels on the floor and relax your hands.
- Repeat until you have enough juice for a glass of lemonade.
- After your last squeeze and throw, shake your hands to relax.

Lazy Cat: This exercise releases muscle tension.
- Imagine that you are a lazy cat that just woke up from a lovely long nap.
- Take a big yawn.
- Do a meow.
- Stretch your arms, legs and back like a cat and relax.

Turtle: This exercise releases muscle tension.
- Imagine that you are a turtle going for a slow, relaxed turtle walk.
- Suddenly, it starts to rain!
- Curl up tight under your shell and stay there for about 10 seconds.
- The sun comes out again, so come out of your shell and return to your relaxing shell.
- Repeat a few times, making sure that you finish with a walk so that your body is relaxed.

Source: Save the Children 2020. https://www.instagram.com/p/B915xc-pNwl/

## Nature Collages

| Goals | Time | Materials | Age |
|---|---|---|---|
| Observing the nature around you, examining natural materials | 10–30 min | Natural materials (leaves, branches, twigs), a big paper/flipchart, glue, coloured pencils, paint | All ages |

**Instructions** First, go out to collect different natural materials. It is important to remind everybody which plants they are allowed to pick and which they are not (e.g. no branches from living trees, only from the ground). Use the collected materials to create artwork. For example, you can glue leaves and branches on the paper and then paint what you want around them. You can also put paint on the leaves and use them to create imprints on the paper. Be creative and use your imagination! The main idea is to use the same big paper for every participant's contribution.

ACTIVITIES

# SOCIETY AND MAKING AN IMPACT

On an individual level, we have very few possibilities to take climate action in our everyday lives. That is why it's important to focus on the climate actions we can take on a communal and societal level. Understanding different decision-making processes and different ways to influence is very important so that we can take impactful climate actions.  A young person thinking about climate change and the environment needs to feel that they don't need to solve these wide societal problems alone, and that there are several actors who already take prominent climate action.

## Social Influence and Terminology

| Goals | Time | Age | Materials |
|---|---|---|---|
| Understanding different ways to make an impact in society. | 10–20 min | 12+ | A word cloud of useful terms (Appendix 7) |

**Instructions** Social influencing is a relatively new concept, so it's important to examine it more thoroughly and get to know the terminology.

Take a moment to consider the things that come to your mind when thinking about social climate influencing. Can you come up with other ways to make an impact besides voting, becoming a politician, or climbing onto an oil rig?

After thinking about this independently, take a look at the picture about different ways to influence your country's climate policies. You can do this in pairs or in small groups. Next, discuss the following questions: In what way can these actions make a difference in society? Which of these actions have you already done? Which of these actions would be plausible options for you to take? When it comes to social influencing, no one size fits all, but you can find your own way amongst multiple different options. You can discuss this in pairs or in small groups and then have a debriefing with the whole group.

Source: https://openilmasto-opas.fi/ota-kayttoosi-ilmastoterveisia-etelasta-hankkeen-tehtavat-ja-taustamateriaalit/

## Walking Debate on Influencing

| Goals | Time | Materials | Age |
|---|---|---|---|
| Contemplating one's possibilities to make a change | 15–30 min | A list of different ways to make an impact | 12+ |

**Instructions** The facilitator places two signs on opposite sides of the space. One says "doesn't make any impact" and the other says "makes a significant impact".

The facilitator tells the participants that they are going to read out loud examples of ways to make an impact, one at a time. The young people have to decide individually whether they think that the read example can "make a significant impact" or whether it "doesn't make any impact", or whether their opinion is somewhere in-between. They indicate this by moving to either end of the room, according to their opinion, or somewhere in-between.

With each example, once everyone has chosen their position, the facilitator asks them why they came to the conclusion they did. At the end, you can also discuss whether the young people come up with other ways to make an impact.

List of different ways to make an impact

- voting
- boycotting
- student board
- climate strike
- youth council
- third sector activities (e.g. environmental organizations, your organization, etc.)
- demonstrating
- social media
- casual discussions (with friends, at home, in your hobbies)
- art
- petitions

## Influential Communication

| Goals | Materials | Age |
|---|---|---|
| Contemplating one's own possibilities to make a change and practicing action-taking | Paper, coloured pencils, phones, tablets, etc. | All ages |

**Instructions** This activity can be implemented either alone or in small groups. This activity is also good for international collaboration, and participants from different countries can challenge each other to make a change. The participants choose a theme or a problem that they think requires change.

- First, they think what the current situation is.
- Then, they set a goal where they want to end up at and what it requires to get there.
- The next step is to create campaigns in different forms about the chosen subject. These campaigns can include posters, news broadcasts, videos, art, etc. about the chosen subject.
- The campaigns will be shared with the whole group and the international partners. This activity is also a great way for the participants to plan challenges for their international peers.

## Miniature Parliament

| Goals | Time | Materials | Age |
|---|---|---|---|
| Contemplating and practicing our own possibilities to make a difference | 30–40 min | Pencils, paper | 12+ |

**Instructions** Introduction: How are decisions made at a national level in your country? How does voting work? How do the representatives gain power?

Let's divide the group into small groups that represent different political parties in your country. Each party will have a central objective that they pursue (e.g. environmental protection, vast individual freedom, fair distribution of wealth, etc.). Each party will come up with a legislative proposal according to the general line of that party. The proposals will be presented to others by providing good arguments supporting the proposal. The others can also ask additional questions. Finally, the whole group will have a vote on each legislative proposal.

## Planning Your Own Society

| Goals | Time | Materials | Age |
|---|---|---|---|
| Getting to know society structures, contemplating the prerequisites for a functional society | 15–40 min | Paper, coloured pencils | All ages |

**Instructions** This is also a great joint international activity between different national groups. You can also use the ecosystems you created earlier as a starting point. After you have all the bases covered, you will need to come up with a public/social order. What kind of rules do you need? How do you make sure that these rules are being followed? In what way do you distribute the resources? How do you take care of humans, animals and the nature?

What kind of social structures do we need? How are the decisions made? You can also share your different societies with others (internationally). Where would you want to live, if you got to choose?

## Campaigns to Execute in Your Home Environment

| Goals | Time | Materials | Age |
|---|---|---|---|
| Contemplating and practicing your own possibilities to make an impact | 15–30 min | Paper, coloured pencils, phones, tablets, etc. | 12+ |

**Instructions** This activity is a good starting point for the challenges that young people can give each other to implement in their everyday lives. When you think about your everyday life, what kind of changes would you like to make? What measures should be taken in order to make these changes? Try to come up with a problem that concerns your own home environment. How should it be solved? Who makes the decisions concerning the problem? Start planning campaigns that you would be able to implement at home, in school, in your home town, etc. The campaign can consist of, for example, posters, social media activity, demonstrations, etc. Which operator would you need with you to make a difference? What measures could be taken? Who could participate and help you?

ACTIVITIES

# SUMMARY

To summarize the experiences and new information gained at the event, you can have discussions and return to your mind map that you created in the beginning.

**The most important thing is that the young people leave the event feeling hopeful and that positive changes can happen more and more in our societies.**

## Filling In Our Mind Map

| **Time** | **Materials** | **Age** |
|---|---|---|
| 10–15 min | Our mind map that we created in the beginning, coloured pencils | All ages |

**Instructions** Let's take a look at our mind map that we created at the start of the camp. Is there something you would like to add, remove or modify based on what you have learned during this camp? You can also create a new mind map with the heading "Combating Climate Change" and write down all that comes to your mind about protecting and helping the climate.

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# GLOSSARY

**Atmosphere (of the Earth)** – "The layer of gases, commonly known as air, retained by the Earth's gravity, surrounding the planet Earth and forming its planetary atmosphere. The atmosphere of the Earth protects life on Earth by creating pressure, allowing liquid water to exist on the Earth's surface, absorbing ultraviolet solar radiation, warming the surface through heat retention (greenhouse effect), and reducing temperature extremes between day and night." (Wikipedia)

**Anthropocene** – Our current geological era, the name of which refers to the huge impact that humans have had on nature and the environment in recent centuries.

**Bicycle Model on Climate Change Education** – A model developed by researchers that uses a bicycle to illustrate the key aspects of climate education. These include: knowledge and skills; values, identity and worldview; actions; motivation and inclusion; barriers; hope and other emotions; and future orientation.

**Carbon footprint** – A term that describes how much greenhouse gas emissions are generated during the life cycle of a product, activity or service. The consumer's carbon footprint refers to the amount of greenhouse gas emissions caused directly or indirectly by consumer choices.

**Carbon neutrality** – A state where only so much carbon emissions are produced as carbon sinks can absorb.

**Carbon sink** – The soil, forests and vegetation that absorb carbon dioxide from the atmosphere. For example, cutting down trees releases carbon dioxide back into the atmosphere.

**Civil disobedience** – A form of peaceful protesting, which includes actively disobeying or breaking the law one finds unjust. The aim is to make a difference in society publicly with a dialogic approach.

**Climate actions** – Various measures that aim to mitigate climate change and reduce greenhouse gas emissions.

**Climate actor** – If we want to tackle climate change, we need states, municipalities, companies, the civil society and schools to take part. All these, as well as the people acting in them, can be called climate actors. We all have our own roles to play in tackling climate change. Active climate actors combat climate change and its consequences in both the South and the North.

**Climate anxiety** – Difficult feelings, such as worry, sorrow, fear and anxiety, that a person can experience when they think about climate change and the future. Climate change is such a significant problem that it's normal to feel anxious. You don't have to feel guilty about this feeling, even though the feeling may be unpleasant. Climate anxiety can be tackled with common stress management techniques, such as getting enough sleep and exercise and discussing your feelings with a friend or a therapist. It is often helpful to take action for the climate in ways that are in line with your mental health.

**Climate change** – Rise in the global average temperature of the Earth over a long period of time. The rise in temperature is caused by the intensification of the greenhouse effect.

**Climate education** – Teaching and learning about issues related to climate change. In climate education, learners reflect on climate issues and their own relationship to climate change. They also learn knowledge and skills that help them act responsibly and take a stand on issues.

**Climate justice** – The question of who has caused climate change and who has to suffer from it. In order to achieve climate justice, everyone in the world should be able to live a decent life, even as the climate changes.

**Climate refugee** – A person who is fleeing from their home country or area to another area or country as a consequence of climate change and its impact. Climate-driven migration is caused by, for example, drought, desertification, the rise of the sea level, and the increase of extreme meteorological conditions, such as hurricanes. Climate-driven migration is expected to increase in the future due to the increased impact of climate change.

**Climate strike** – A strike means that employees make a collective decision not to work for a specific period of time in order to put pressure on their employers or the state on a certain topic. The right to strike is a basic right of employees in most countries. "Climate strike" became a well-known concept in 2018 when a 15-year-old Greta Thunberg went on strike from school because Sweden, her home country, didn't do enough to tackle climate change. Her actions started an international movement, and millions of students have participated in climate strikes all over the world.

**Consumer choices** – Our consumer choices have an impact on the world. The most significant consumer choices concern our ways of living, transportation, eating, and what goods and services we buy. In practice, consumer choices include, for example, changing your electricity to green energy, eating more plant-based food and less meat, walking and cycling more and driving less, and consuming less.

**Environmental education** – All kinds of learning, teaching and upbringing with content related to the environment.

**Fossil fuel** – Non-renewable natural energy sources such as oil, coal, natural gas and peat. Fossil fuels are used in the production and utilization of nearly all goods and services.

**Global North** – Rich countries on a global scale, also called developed or industrialized countries. Countries of the Global North include e.g. Finland, Japan, the USA and most European countries.

**Global South** – Low and middle-income countries located in Asia, Africa, Latin America and the Caribbean. These countries have previously been referred to as developing countries. The majority of the people living in the Global South actually live in the Northern Hemisphere.

**Greenhouse effect** – A natural phenomenon where certain gases in the atmosphere act like the glass roof of a greenhouse: they let the light from the Sun pass through to the surface of the Earth, but prevent part of the radiation converted into heat from escaping back into space.

**Greenhouse gases** – Gases in the atmosphere that prevent thermal radiation from being reflected from the Earth back into space, thus accelerating the greenhouse effect. Greenhouse gases include water vapour, carbon dioxide (CO2), methane (CH4) and nitrous oxide (N2O).

**Greenhouse gas emissions** – Greenhouse gases generated by humans released from e.g. traffic, industry and consumption.

**IPCC** – The Intergovernmental Panel on Climate Change is the United Nations' body for assessing the science related to climate change. IPCC consists of leading experts in climatology. However, IPCC doesn't conduct its own research, but rather collects scientific research sources and publishes comprehensive joint reports about different aspects of climate change.

**Over-consumption** – The production of almost every consumer product and service requires huge amounts of fossil fuels. For this reason, we can say that the over-consumption of natural resources is the core reason for climate change.

**Renewable energy** – Energy that is collected from renewable sources such as sunlight, wind, rain, tides, waves, biomass and geothermal heat. Using renewable energy causes significantly less climate emissions than fossil fuels.

**Paris Climate Agreement** – An agreement signed in 2015, in which almost all countries in the United Nations agreed on the goal of slowing down the climate change and limiting the temperature increase to 1.5 degrees above the pre-industrial level.

**Sixth mass extinction** – Also known as the Great period of extinction. An accelerating decline in the number of species that has taken place in recent centuries. It is the first period of extinction that has happened as a consequence of human action. The decline in species has been caused by loss of habitat, over-consumption of natural resources, overfishing and overhunting, and climate change. Mass extinction constitutes a clear attack on the Earth's biodiversity.

**Social influence** – We need various kinds of social/public influencing by both politicians and private citizens in order to tackle climate change. Private citizens can participate in tackling climate change by e.g. doing third sector activities and writing opinion pieces, emails, letters and petitions to members of parliament, members of municipal councils, trade unions or businesspeople. Other ways to participate include organizing events or demonstrations, voting, social media discussions, informal discussions, and creating art and e.g. subvertisements.

**Sustainable living** – A lifestyle where an individual lives in harmony with the environment and does not consume natural resources excessively.

# ADDITIONAL MATERIALS

### Useful Links and Sources

- What is climate change? A really simple guide. BBC. https://www.bbc.com/news/science-environment-24021772
- Raising children to thrive in a climate changed world. Australian Psychological Society. https://www.psychology.org.au/getmedia/e8cda6ca-ecfe-42c7-8538-492950bac8ba/Raising-children-climate.pdf
- A guide for parents about the climate crisis. Australian Psychological Society. https://www.psychology.org.au/getmedia/f7d0974d-4424-4d60-a7eb-cfa0431b6860/Parents-guide-climate-crisis.pdf

### Watch/read more

- Teacher's climate guide. https://teachers-climate-guide.fi/(Very thorough guide on climate change with exercises and tips. Directed to teachers but also useful for other educators and applicable in other settings besides school.)
- Who Is Responsible For Climate Change? – Who Needs To Fix It?. Kurtzgesagt. https://www.youtube.com/watch?v=ipVxxxqwBQw(Focus on nation states)
- Is It Too Late To Stop Climate Change? Well, it's Complicated. Kurtzgesagt. https://www.youtube.com/watch?v=wbR-5mHI6bo  (Why it is so hard to stop emitting greenhouse gases and what should be done on


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