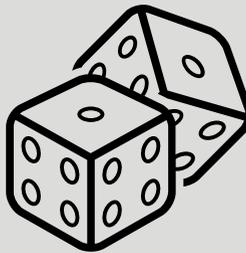


IBG Green Box

Tools for sustainable camps



IBG

Internationale Begegnung
in Gemeinschaftsdiensten e.V.

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Introduction

Dear camp leaders, dear participants, dear interested people,

this is not a second manual for camp leaders, but a toolbox to support you with **games and playful methods** before and during the camp. All this is in the context of the **environment and sustainability**.

Here, you will find different categories of games and methods, which are explained - we hope - simply and understandably. The categorisation should not be understood too narrowly, but only to roughly separate the methods from each other. Often energizers can also be used as a method for getting to know each other or for observing group dynamics, or vice versa. So don't be too strict with this booklet and the games, and especially not with yourselves. Many of the games in this booklet are probably also available in other versions or combinations, so you can experiment a little.

Most importantly, keep in mind the following: **Whatever is fun is allowed. Have fun trying out these methods and games and learning a bit more about the environment.**



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Environmental education

"Whether working with adults or children, environmental education is **learner-centered** and provides participants with **opportunities to construct their own understanding through hands-on, minds-on investigations**. Engaged in direct experiences, learners are challenged to use higher order thinking skills. Environmental education provides real-world contexts and issues from which concepts and skills can be learned." (Guidelines for Excellence Nonformal EE Programs, North American Association for Environmental Education)

General guidelines

- Find games/workshops from the book or another source you **like and feel comfortable with**.
- Create an **informal atmosphere** (no or little "classroom teaching").
- Don't forget to make a **timeframe** for the workshop and follow it during the session.
- **Include the knowledge of the participants** of an activity and be open to their suggestions for, for example, an energizer.
- Show the participant that **you are interested in what they are saying**.
- Explain to the participants of an activity the **connections between the methods** and make sure the **common theme** is clear within the group.



Energizers



are small **activation games** that are always needed when there is a **lack of energy** after a lunch break or in the morning before work. Even if some games sound "strange", they rarely fail to have an effect and help the group to get back on its feet.



can be **used often and en masse**. As many energizers are physically demanding, please do not use them for too long, otherwise, everyone will be exhausted. **Make sure that everyone participates, that no one is left behind and that no one gets hurt!**



Cowshed

Category:

Getting to know each other, Warm up

Time:

10-20 minutes

Aim:

Form groups of three, activation

Material:

-

Preparation:

In the beginning, groups of three people form a cow shed together: Two people hold hands, (can also be represented with distance, and do not have to touch each other) stand opposite each other with as much distance as possible and thus form the shed. The third person stands between the other two as the "cow". If the division of the groups does not work out, those who cannot form a cow shed are allowed to help lead the game.

Game instructions:

The persons who are left now call out a command. Possible commands are "Cow!", "Stable!" or "Cowshed". With "Cow!" all "cows" change the stable, with "Stable!" all "stables" change the "cow", with "Cowshed!" all persons change to a new stable with cows and do not have to keep their roles. Meanwhile, the remaining persons also try to come back into the game as a cow or stable. The person(s) left after the command and then give the new command. Otherwise, the group leader can take over.



Evolution

Category:

Energizer,
Warm up

Time:

10-20 minutes

Aim:

Activation

Material:

-

Preparation:

To trace the evolution of the human being, practise the five developmental stages with the group:

1. the egg crouches down on the ground, with its arms around its knees and wobbles slightly back and forth. It is in the nature of things that eggs do not make any noise.
2. the chicken waddles around the room in a squatting position, wiggling its elbows and clucking. and cackles.
3. the dinosaur stands up, stretches upwards, shows its claws with pointed fingers and roars terribly.
4. the ninja straddles his legs and bends his knees slightly, he fights with a fictitious sword.
5. the sage finally stands quietly upright, holds his hand under his chin and watches the primitive species evolve.

Game instructions:

At the beginning of the game, everyone is at the egg stage and wants to develop to the next level. They do this by meeting two of the same species and using "rock paper scissors" to negotiate who gets to evolve. Whoever loses, however will, however, move back one level or remain an egg. Once you have become a sage remain a sage and enjoy watching. Only people of the same kind are allowed to negotiate with each other, i.e. dinosaurs must find dinosaurs, etc. find dinosaurs, etc. If there is no representative of the same level of development present, one has to wait or stay for a while in the same evolutionary stage.

End of game:

Everyone is a sage.



Herding dog

Category:

Energizer,
Warm up

Preparation:

Form a group of herding dogs (one or two people) and a group of sheep (the rest of the group).

Time:

10-20 minutes

Game instructions:

On an open field, the sheep move around walking straight in different directions. The guard dogs need to keep the sheep together as close as possible. The dogs can do that by adjusting the walking direction of the sheep. If the dogs tap one time on the left shoulder of a sheep, the sheep needs to turn left, on the right shoulder to the right and when tapped two times, the sheep needs to turn around 180°. In this way, the herding dogs can make sure that no sheep gets lost.

Aim:

Activation

Material:

Open field
(meadow)
without
barriers on
the borders

End of game:

The herding dogs succeed or fail in keeping the sheep together. Then the roles can be switched.



How are you?

Category:

Energizer,
Warm up

Time:

10-20 minutes

Aim:

Activation

Material:

-

Preparation:

Built a circle, one person in the middle.

Game instructions:

Everyone sits in a circle, one person stands in the middle. They go to another person and ask how they feel.

Answers are:

a) "Thank you, I feel good like a sunflower".

-> nothing happens

b) "It's going like this, feel like a dormouse that has just woken up".

-> neighbours switch places

c) "Not so good, like a fire salamander that is threatened with extinction".

-> everyone is changing their seats

End of game:

Each person was asked once how they were doing.



Rangers of the National Park

Category:

Energizer,
Warm up

Time:

10-20 minutes

Aim:

Activation

Material:

Squeaking
animal (e.g.
duck)

Preparation:

Mark a start line. Form a group of rangers (3-4) and a group of poachers (rest of the group).

Game instructions:

The group of rangers stand around 5-10 meters away from the start where the poachers stand along the line. The squeaking duck is laying on the ground in front of the rangers. The rangers need to turn around while saying loudly: "We are the rangers of the National Park and we take good care of our wildlife." While the ranger says this the poachers need to approach the duck to get it but needs to freeze once the rangers finished turning around. This is then repeated. Once the poachers reach the duck they need to grab and hide it once they need to freeze again. Now the rangers can call three poachers to show their hands if they have the duck. If the rangers find the duck before the poachers reach the start line with it, the poachers need to start over again and can think about a better strategy. Be careful because the duck makes a squeaking sound if a poacher grabs it too hard!

End of game:

The poachers bring the duck back over the start line.



Relay race with stones

Category:

Energizer,
Warm up

Time:

10-20 minutes

Aim:

Activation

Material:

Stones

Preparation:

Mark a start and a finish line. Form two or three groups.

Game instructions:

In small groups, the group does a relay race with various dexterity and balance tasks: Balancing a stone on the head or the instep of the foot from the start to the finish line and back, rolling a stone along the ground without throwing it, running with the stone in the hand or between the knees...

The "risky stone path" takes a little more time: From the start to the finish line, the participants are only allowed to move on three distributed stones, which they always place in front of them in turn. If you miss, you have to start all over again.

End of game:

One group wins the race.



Rising sea levels

Category:

Energizer,
Warm up

Time:

15-20 minutes

Aim:

Activation

Material:

Cardboard,
pencil, chalk,
music

Preparation:

Circles of different sizes made of cardboard are placed on the floor. Each circle represents a life raft that can hold a different number of people.

Game instructions:

Everyone moves around the room to music. As soon as the music stops, everyone looks for a life raft. The person who does not find one or jumps up as "one too many" is eliminated.

Variations:

- Replace the music with a story in which the life rafts play a role.
- Only people with the same characteristics, e.g. same eye colour or hobby, are allowed on the same life rafts.

Icebreakers



are, of course, the **most important thing at the beginning**. Many of the get-to-know-you games are aimed at getting to know the names at the start of the camp without having to ask too many (embarrassing) questions. Other games focus more on learning something personal about others and a little bit of interpersonal exchange. Getting-to-know-each-other games **can also be used later** in the camp, sometimes then they are even particularly funny.



are **fun!**



Climate salat

Category:

Getting to know each other, Warm up

Time:

10-20 minutes

Aim:

Activation, Learning something about the others

Material:

Chairs

Preparation:

In enough space, put a tight circle of chairs, where there is one chair less than the number of people playing.

Game instructions:

The climate salat is based on the game fruit salad. One person stands in the middle and asks a climate-relevant question to the other players sitting in the circle. All the people, who answer this question must then stand up and change their chairs. The person in the middle tries to get a free chair as quickly as possible. The person, who goes away empty-handed is back in the middle and has to think up a new question. It is forbidden to move directly to the neighbouring chair. If the person in the middle calls out "climate salat" (if they cannot think of a question), all the other players must change their chairs.

Possible questions:

1. who has already flown on holiday this year?
2. who rides a bicycle to school/university/work?
3. who eats mainly organic food at home?
4. who takes a bath instead of a shower?
5. who always leaves his computer on stand-by?
6. who uses a clothes dryer at home?

Tip: The climate salat is particularly suitable after working on your own "Ecological Footprint or after a discussion about options for action in everyday life.



Curtain falls

Category:

Getting to know each other, Warm up

Time:

10-20 minutes

Aim:

Activation, Learning names

Material:

Blanket, curtain or bed sheet

Preparation:

You need two teams and a large blanket. The teams are divided randomly and should have the same number of players. Two game leaders stretch the blanket as a curtain between the two teams so that they cannot see each other.

Game instructions:

While the curtain is stretched: Each team designates one person to sit in front of the curtain. When both teams are ready, the ceiling is dropped. Then the curtain falls: Now the two sitting in front of each other have to say the name of the opposite person as quickly as possible. The slower one has to switch to the other team. Then the game starts again from the beginning. The curtain is drawn and two players are positioned.

Tip: If the players already know each other better, you can have them say their hobbies or favourite food or colour instead of their names. The game is suitable as a get-to-know-you game or as an energizer to interrupt group lessons and events and to draw the attention of the participants to each other.

End of game:

The game ends when there are no players left in one team or after each person has had one turn and one of the two groups has won.



Four corners

Category:

Getting to know each other, Warm Up

Time:

10-20 minutes

Aim:

Getting to know each other

Material:

four corners in a room

Preparation:

No preparation

Game instructions:

All players move around. The game leader calls out the main topic and assigns possible answers to the corners. The players now move to the corner whose answer is closest to them.

Examples:

Nutrition: vegan, vegetarian, everything, other specialities

Transport/travel: Plane, train/bus, car, bicycle/walking

Favourite place: beach/sea, mountains, forest, city

Shopping: supermarket, discount shop, organic market, unpacked shop



I have already...

Category:

Getting to know each other, warm up

Preparation:

No preparation

Game instructions:

One person stands in the middle of a circle of chairs, so there is one chair too few in the circle. This person now says a sentence that begins with "I have already done..." or "I have already been..." and ends with one thing. All those who have already done this thing stand up and look for a new place. One of them doesn't find one and has to say a sentence next.

Time:

5-15 minutes

Aim:

Introduction round

Material:

chairs (one less than participants)



Tree trunk

Category:

Getting to know each other, Warm up

Time:

10-20 minutes

Aim:

Activation, Learning names

Material:

Tree trunk or string, maybe paper and pen

Preparation:

No preparation.

Game instructions:

The whole group stands on a tree trunk. According to the size of the group, the game leader writes consecutive numbers on individual pieces of paper. Now the players are given the numbers by the game leader in an unordered way. The group has to arrange themselves according to the numbers - without any of the participants touching the ground. You can make the game more difficult by not allowing people to talk to each other, so that they only know their own number, but not other people's numbers. Depending on what changes, you may have to change places more often during the game.

You can also play the game by tightening a string. The players have to keep one hand on the string at all times (they can only let go of one hand). Or you do it in a way that everyone stands in a row and can only swap places with the next person if they climb through between their feet. For extreme athletes: Stretch the rope relatively low. The string must always run between the legs, one hand of each player must always remain on the string. You can also vary this game so that the players don't get numbers, but letters, which they then have to use to form a word. Here, of course, the chaos is even greater because the players first have to agree on what kind of word they want to form. Or they have to sort themselves by first name/birthday.

End of game:

When the group thinks they are in the right order, they reveal it.



Which forest do you come from?

Category:

Getting to know each other, Icebreaker

Time:

20 minutes

Aim:

Introduction round

Material:

Pictures of forests

Preparation:

No preparation

Game instructions:

Everyone presents themselves and also describes how the forest looks like where they are from. Which species are growing there? How tall are the trees? Do mainly coniferous or deciduous trees grow there? Or is another species dominant?

End of game:

Everyone introduced themselves.

Perception

 is especially **nice after strenuous work** and good for gaining an awareness of nature.

 helps to **get some peace into the group** when there have been disagreements or heated discussions.

 also **possible on your own** if you want to sort out thoughts or expand your awareness of your surroundings.



Domino laying action

Category:

Perception,
Forest,
Meadow,
Stones

Time:

20-30 minutes

Aim:

Calm down,
concentration

Material:

Different
stones

Preparation:

The group goes around and is searching for stones.
Everyone needs a stone.

Game instructions:

From a large supply of different stones, stones are placed next to each other according to domino rules. are placed next to each other in such a way that the next piece must always take up a feature of the and at the same time has another typical feature (round/red - red/big - big/rough).



Fox walk

Category:

Perception,
Forest,
Meadow

Time:

10-25 minutes

Aim:

Mindfulness,
and
connection
with nature

Material:

-

Preparation:

No preparation

Game instructions:

In the fox walk, you start with the first task and tell the group to walk as quietly as possible. Once they have done this for a certain distance, you can take the next step and demonstrate how to put your feet up extremely slowly: The outside touches the ground first and then you roll off very slowly. If you move like this, it may take you half an hour to walk 10 metres, but you also have the chance to see more animals and become more aware of the nature around you. It's also good in combination with the Owl's Eye activity.

End of game:

After 10 to 25 minutes the group stops and talks about their experiences.



Into the wild

Category:

Perception,
Forest,
Meadow, Water

Time:

30-60 minutes

Aim:

Experience of
nature,
confidence
building

Material:

Nature

Preparation:

No preparation

Game instructions:

Each player chooses a place in nature to which they feel attracted. Individually spread out in nature, the players observe animals and plants and listen to the sounds of the environment. "Into the Wild" promotes the participants' trust in themselves and their surroundings. Everyone chooses a place in nature to which they feel attracted and which invites them to linger. This can be a large stone, a forest clearing or a particularly beautiful piece of flower meadow. The next participants are out of sight. Spread out individually in nature, the participants observe animals and plants and listen to the sounds of the surroundings. They perceive their mood and thus get to know not only nature but also themselves a little better.

End of game:

After 30 minutes, the leader calls everyone back. A previously agreed bird call can be used for this purpose. In the reflection round, they then share their observations with the others.



Noise Location Game

Category:

Perception,
Forest,
Meadow

Preparation:

No preparation.

Time:

20-30 minutes

Aim:

Activation

Material:

Something to
blindfold

Game instructions:

One person is blindfolded and stands in the middle of a suitable, quiet piece of a forest. The group spreads out around the person at a distance of about 7 metres. Now everyone is quiet and must try to get as close as possible to the blindfolded person. The person has the task of locating people. Whenever they think they know where someone is, they point their finger in that direction. If they are right, the person has to stay where they are. If they are wrong, nothing happens.

End of game:

The game continues until everyone has been located or someone high-fives the blindfolded person. This person or the person who has made it the furthest is the winner and is in the middle in the next round.



Owl's Eye

Category:

Perception,
Forest,
Meadow

Time:

5-10 minutes

Aim:

Mindfulness,
inner peace
and
connection

Material:

Nothing,
possibly a
seat pad

Preparation:

No preparation

Game instructions:

Spy like an owl and look at your surroundings differently. Imagine you are an owl and, without moving, scout your surroundings for potential prey. To do this, find a place where you have a good view and sit cross-legged with your hands in your lap or on your knees. Your eyes are open and you look alternately from left to right. Only your eyes move, the rest of your body is still, like an owl looking for prey. To become completely calm, you can adjust the movement of your eyes to your breath and inhale slowly on the left and exhale slowly on the right. Then close your eyes and look mentally at your forehead to trace.

End of game:

After 10 minutes, the leader calls everyone back. A previously agreed bird call can be used for this purpose. Ask for the experience.



Thought Journey "Tree"

Category:

Perception,
Forest,
Meadow

Time:

15 minutes

Aim:

Mindfulness,
and
connection
with nature

Material:

-

Preparation:

No preparation

Game instructions:

Go to a tree. Think about it for three minutes. Think of how it grows, think of its leaves, of the birds that sing in its branches, of the mosses and lichens that grow on it, of all the animals that live on it and so on. But don't think about anything else. If a thought does come to you, put it in a cloud and let it drift away in the blue sky.

End of game:

After 10 minutes, the leader calls everyone back. A previously agreed bird call can be used for this purpose. Ask for the experience.



What are stones like?

Category:

Perception,
Forest,
Meadow,
Stones

Preparation:

The group goes around and is searching for stones.
Everyone needs a stone.

Time:

20-30 minutes

Aim:

Activation

Material:

Different
stones

Game instructions:

From a large pool of different stones, pairs of stones are selected and placed next to each other on a cloth in such a way that they stand as an example for a pair of opposing characteristics. It is important to choose the pair of stones in such a way that exactly the intended characteristics are shown to advantage. Either the group guesses the characteristics of the pairs that have already been placed or they place them themselves.

Example: light and heavy (white pumice stone and white pebble of the same size) or colourful and monochrome, smooth and rough, angular and round...

Group breakdown

 as the name suggests, are methods used to **divide up groups in a playful way**.

 is a good idea especially when groups have already formed and you want to **mix the group again** a little more.

 strengthens **group cohesion and group dynamics**.



Animal Theatre

Category:

Group
breakdown

Time:

10 minutes

Aim:

Group
formation

Material:

Animal cards

Preparation:

No preparation

Game instructions:

Each participant is given a picture of an animal, which can be an animal from the forest, the meadow, the water or something completely different. All animals are represented several times without the participants knowing who has which animal. Before the game begins, it is clarified whether everyone knows their animal. How does it move, what, how and where does it eat? What sounds does it make? At a starting signal, all participants slip into the role of their animal and play it at the same time as the others. In this way, it becomes clear who is which animal and identical animals come together in groups without speaking. Then each group introduces its animal so that the others can guess the type of animal. Depending on how large the groups are to be, a corresponding number of identical animal cards are distributed.

End of game:

After each group presented their animal the groups are formed.



Ant game

Category:

Group
breakdown,
Warm up

Time:

10-20 minutes

Aim:

Activation,
Learning
names

Material:

-

Preparation:

No preparation.

Game instructions:

The players run around like ants on a meadow. The game leader suddenly calls out "ant" and then a number, e.g. "Ant seven!" Immediately, the players have to form ant colonies in the number called out by the game leader.

The game leader can control the length of the game by clever number sequences.

End of game:

When the group size wanted is formed. Or normally, there are always a few players left who are too few to form a state of the required size. These players are eliminated. After a few rounds, there are only very few players left and the game is over.



Plant groups

Category:

Group
breakdown

Time:

10 minutes

Aim:

Group
formation

Material:

Plant cards

Preparation:

No preparation

Game instructions:

Each participant is given a picture of a plant, which can be a plant from the forest, the meadow, the water or something completely different. All plants are represented several times without the participants knowing who has which animal. Before the game begins, it is clarified whether everyone knows their plant. How does it look, and where does it grow? At a starting signal, all participants describe their plant. In this way, it becomes clear who is which plant, and identical plants come together in groups without telling the name of the plant. Then each group introduces its plant so that the others can guess the type of plant. Depending on how large the groups are to be, a corresponding number of identical plant cards are distributed.

End of game:

After each group presented their plant the groups are formed.

Reflection

 is not only important in groups **at the end of an encounter, but also beforehand**. Often, **mid-term evaluations** reveal one or two inconsistencies that you may be able to influence.

 is particularly important so that participants can **recognise and understand different perspectives** and potentially different personal needs.

 should encourage participants to **reflect** on themselves and their position.



Brainwriting

Category:

Feedback

Time:

30 minutes

Aim:

Feedback,
Reflection
round

Material:

Four walls
with paper or
flipcharts,
pens

Preparation:

Four walls with paper or flipcharts, pens. The walls are labelled with the following headings:

1. education and politics
2. everyday life and consumer behaviour
3. traffic and mobility
4. utopias for a more climate-friendly world world

Game instructions:

At the signal to start, the participants have about 5 minutes (longer if necessary) to think of a climate-friendly behaviour/alternative for the headings 1 - 4 on the walls and to write it down on the wall in a way that is easy for everyone to read. According to the motto: What would have to be done, or what would we or each individual have to do, so that climate change does not get worse? It is possible to work individually or in groups. Individual options for action can also be added to or commented on by others on the board.

Evaluation:

The comments are read out loud by the facilitator and sometimes taken up as a discussion and passed on to the participants. Incomprehensible ideas or comments should be explained again by the respective authors for all to hear.

Tip: What is needed are somewhat unusual ideas and, above all, ideas about a world in which the young people themselves would like to live. In this respect, it is particularly interesting if young people are encouraged not to think in terms of rules and norms, but to fantasise freely and still come up with ideas and possibilities that can be taken seriously.



Dartboard

Category:

Feedback

Time:

5-15 minutes

Aim:

Feedback,
Reflection
round

Material:

Paper, pen,
adhesive
dots

Preparation:

A dartboard is drawn on a sheet of paper. So a circle is drawn, divided into several concentric circles and different pieces of cake.

Game instructions:

The participants get sticky dots or a pen. They rate whether a section of the programme has "hit the bull's eye" or was perhaps "completely off the mark", i.e. even outside the target.

Tip: The dartboard is particularly suitable for quick reflection at the exit door when there is not too much time left for reflection.



Feedback

Category:

Feedback

Time:

30 minutes

Aim:

Feedback,
Reflection
round

Material:

Shopping
basket,
mixer,
compost,
moderation
cards, pencils

Preparation:

Three symbols (shopping basket, compost and mixer) are placed on the floor (either draw on site or print out beforehand and bring with you).

Game instructions:

The participants are then given moderation cards on which they can write down their feedback. Depending on the time capacity and the size of the group, the moderation cards with the comments can be read out and put down to match the symbols or simply silently assigned.



Weather forecast

Category:

Feedback

Time:

30 minutes

Aim:

Feedback,
Reflection
round

Material:

Blackboard
or large
poster for the
weather
report, pens,
possibly A4
sheets

Preparation:

The different points to be reflected are drawn on a poster or blackboard. These can be the individual programme points of a weekend seminar or sections of project implementation. The symbols for the weather map (sun, rain, clear to cloudy, fog, etc.) are presented to the group and explained. Suggestions from the participants for extending the map can be taken up.

Game instructions:

Each participant draws or staples their weather symbols in the spaces provided and explains what they mean.

Excursions



can be a group excursion for **scientific or educational purposes**.



are intended to **open up and enable new perspectives**.



should also be **fun and make people curious** about new knowledge and new places.



Biodiversity made easy

Category:

Experiment,
Forest, Water,
Meadow

Time:

10-20 minutes

Aim:

Getting to
know species
through play

Material:

Sheet of
paper, pen,
identification
book

Preparation:

Introduction to the areas where counting is to take place. Distribution of pens and paper.

Game instructions:

Go out into nature and count all the plant or animal species you can find. How many species grow in which areas? Look for all the species you can find in the meadow. Count them, then go to the next meadow and do the same.

End of game:

Compare the numbers and look at the surroundings and the location. Of course, you can do the same in the forest or just outside your door.

Now start to identify some species. Use an identification book or an identification app (e.g. FLORA Incognita APP for plants). Start thinking about why there are more species in one area than in the other.

Herbal hike

Instructions for a wild herb hike

- If you have one, take an **identification book** and a **collecting container** with you.
- **Only harvest what you can identify 100%!**
- Only take **as much as you need** (one handful per person).
- Do not harvest the whole stand from one area, but **leave some plants** so that they can still grow.
- **Do not harvest along roadsides, crossroads or game trails.** Animals may have marked their territory there.
- The plant material must be **clean**. It must not be nibbled or have brown spots.
- The plant material **does not need to be washed** as it loses valuable ingredients in the process.
- People with **allergies** should know exactly which plants they can tolerate. Some plants can cause allergic reactions on the skin (e.g. asteracea). Test in the crook of the arm if necessary.

Herbal hike

Chamomile

***Matricaria recutita* - Asteraceae**

Common name

German chamomile, Hungarian chamomile, wild chamomile, blue chamomile, or scented mayweed. Chamomile with its characteristic basket flowers are one of our best-known wild herbs. At the same time, the flowers of chamomile have been valued in medicine for many years. There they are used, among other things, for stomach and intestinal complaints or skin problems. But the leaves and young flowers of chamomile can also be used in the kitchen.



Use in the kitchen

- Chamomile is rarely used as a spice or kitchen herb. Nevertheless, both the leaves and the flower buds are edible and also recommended.
- Chamomile leaves can be used as a seasoning for hearty soups, egg dishes or herbal curds.
- The young flower buds can be prepared as a vegetable. To do this, soak them in water for about 20 minutes and fry them on light heat with a flavourful oil (e.g. olive oil).
- Fresh and usually young chamomile flowers, can be used well as a vitamin-rich garnish in wild herb salads.
- A delicate and cold dessert for the summer is chamomile ice cream. For this, fresh chamomile blossoms, preferably in combination with fresh mallow blossoms, are first gently boiled in a water bath. The broth is mixed with honey and finally with yoghurt or cream. The mixture can be flavoured with lemon or lime juice before being placed in the icebox.

Healing properties

- anti-inflammatory
- antispasmodic
- promotes wound healing
- antibacterial
- skin regenerating

Herbal hike

Chickweed

***Stellaria media* - Caryophyllaceae**

Common name

Common chickweed, chickenwort, craches, maruns, and winterweed

Characteristics

Chickweed can be harvested almost all year round. It germinates even at low sub-zero temperatures and sprouts under snow. It tastes slightly like peas. Ingredients: Vitamins, saponins, flavonoids, coumarins, minerals, oxalic acid, mucilage, zinc and essential oils.



- Blood purifying
- Haemostatic
- Diuretic
- Anti-itching
- Cooling
- Promotes menstruation
- Lactation stimulant
- wound healing
- Antipyretic
- expectorant

Use: e.g. wild vegetable, seasoning herb, medicinal herb

As a wild vegetable in herb salad, herb curd: Simply add a handful of chickweed to the salad or herb curd.

As a medicinal herb

Eye inflammation, flatulence, bronchitis, eczema, boils, joint inflammation, sty, ulcers, gout, skin problems, haemorrhoids, cough, itching, lung problems, kidney weakness, pimples, bruises, rheumatism, poorly healing wounds, cuts, psoriasis, lower leg ulcers, constipation.

Miscellaneous

- One plant can produce up to 15,000 seeds.
- It keeps the soil moist and protects against erosion.
- Chickweed is gladly eaten by birds.



Herbal hike



Common dandelion

***Taraxacum officinale* - Asteraceae**

Common name

Dandelion, pisenlit (French)

Characteristics

A special feature of the dandelion is that no two leaves are alike. Each leaf has its teeth, bays and sizes. This is influenced by location, light, soil nutrients, etc. Another characteristic is that the flowers open in the morning when the sun is shining and close in the afternoon or when it rains. When the flower is ripe, the bracts close around the flower, the stem becomes longer and leans and the flower head hangs down. When the dandelion fruits are ripe, the head lifts again and opens around the flower.

Confusion

In autumn, the dandelion can be confused with the autumn dandelion (*Leontodon autumnalis*). The stem of the latter is not hollow and not poisonous. In spring, there is only the dandelion with the white milky sap in the stem. Ingredients: Bitter substances, choline, in spring approx. 19% sugar, inulin (spring 2%, autumn 40%), flavonoids, mucilage, vitamins, minerals, tannins, aluminium, ascorbic acid, bromine, carotene, iron, iodine, potassium, silicic acid, rubber, manganese, saponins, essential oil. Bitter substances stimulate the appetite, aid digestion, stimulate the immune system, and choline affects the gall bladder and the intestines. Stimulates the mucous membrane of the large intestine, and has a laxative effect.

As a medicinal herb

- Dandelion is a liver-bile plant, Stimulates the liver, gall bladder, and kidneys.
- It invigorates the body, improves bowel function
- The leaves contain a lot of vitamin C (especially good in spring before flowering)
- Has a flushing and cleansing effect on rheumatism and arthritis
- As a wild vegetable
- The young leaves can be added to salads in spring. After flowering the leaves are bitter.

Herbal hike

Daisy

***Bellis perennis* - Asteraceae**

Common name

Common daisy, lawn daisy or English daisy, historically, it has also been widely known as bruisewort, and occasionally woundwort

Characteristics

Daisies defy frequent lawn mowing and keep forming new flower heads. Particularly striking characteristics, by which they are easily recognised, e.g. striking leaf shape or hairiness, smell, taste or how they feel. The petals turn pink at the edge of the flower when it rains. The flowers close at night and when it rains. They only open when the sun is shining and always turn their flower heads towards the sunlight.

Ingredients

Essential oils, bitter substances, iron, flavonoids, tannins, inulin, potassium, calcium, magnesium, saponins, mucilage, vitamin A, vitamin C, vitamin E (tocopherol)

Astringent, blood purifier, antispasmodic, expectorant, analgesic, metabolism stimulant, digestive stimulant

Uses: e.g. wild vegetable, seasoning herb, medicinal herb

Daisies are good for decoration in the kitchen. But they can also be used in salads, soups and herb curd. They are also delicious freshly sprinkled on bread or briefly sautéed in a little olive oil and then added to a salad.

Helps with

Arteriosclerosis, bronchitis, eczema, colds, fever, springtime tiredness, uterine problems, haemorrhoids, skin inflammation, skin problems, coughs, insect bites, liver weakness, lip herpes, pimples, wounds, gum inflammation.

Other

To our ancestor daisies were sacred, they stood for innocence and purity. Daisies belong to the spring flowers, in England, they are a real herald of spring, they say "If you can step on seven daisies with one foot, it's spring".



Herbal hike

Ground ivy

***Glechoma hederacea*- Laminaceae**

Common name

Gill-over-the-ground, creeping charlie, alehoof, tunhoof, catsfoot, field balm, and run-away-robin

Characteristics

A special characteristic of ground ivy is its flavour. It is very tart and aromatic.

Confusion

Gundermann can be confused with speedwell and polemist (poisonous!). The leaves of polemist have a strong minty smell when crushed. The flower stems of speedwell are strongly branched and the leaves are obovate. It is also a plantain. Ingredients: Tannins, bitter substances, vitamin C and essential oils are contained in ground ivy. They have anti-inflammatory, analgesic, astringent, expectorant, stimulating effect on the bladder and kidney and stimulates and regulates metabolism.

Use as a seasoning and medicinal herb

In the kitchen, ground ivy is used more as a herbal seasoning, as it has a very strong flavour of its own. It should also be used in combination with other vegetables. It is good for seasoning soups and can be a good alternative to parsley.

As a medicinal herb, it is rather used for long-lasting and festering diseases. It is also said to regulate metabolism.





Herbal hike

Hawthorn

Crataegus - Rosaceae

Common name

Quickthorn, thornapple, May-tree, whitethorn, Mayflower, or hawberry "Crataegus" means "strong, firm". The wood of the hawthorn is very hard and strong and was once used to make tools.



In the Neolithic period, farmers protected their livestock with thorn hedges. The farms were located on cleared areas in the middle of the primaeval forest and hedges such as hawthorn, hedge roses, and sloes (blackthorn) separated the cultivated land from the primaeval forest and thus kept wild animals and the uncanny away.

In the past, children's cradles were made of hawthorn to protect them from evil fairies.

Mythologically, the hawthorn is considered the abode of elves and guardian spirits. In the fairy tale Sleeping Beauty, it is probably hawthorn and not hedge roses, as these do not have thorns but spines.

Use in the kitchen

- A very tasty hawthorn-apple puree can be made from the fruits in autumn.
- Pickled in red wine it makes a heart wine, pickled in vodka with sugar it makes a liqueur.
- A hawthorn tea made from flowers, leaves and fruits is also very popular.

Healing properties

- Heart-strengthening
- Regulates blood pressure
- Recommended in cases of cardiac insufficiency due to old age or after infectious diseases or other mild heart complaints.
- For the prevention and after-treatment of heart diseases.
- Coronary vessels are better supplied with blood



Herbal hike

Ribgrass plantain

Plantago lanceolata* - *Plantaginaceae

Common name

Ribwort plantain, narrowleaf plantain, English plantain, ribleaf, lamb's tongue, and buckhorn

It is native almost everywhere in the world. This is

because the seeds stick to the soles of the feet and are thus spread all over the world. Ribwort is reminiscent of a footprint. That is why the Indians call the ribwort the "foot-staple of the palefaces" or "Englishman's foot" because they believed that the ribwort only grew where an Englishman had put his foot. Before the English settled, there was no broadleaf plantain in America. With the footsteps of the Romans, the common plantain also made it across the Alps. It was a Mediterranean plant. Plantain seeds were also found in the stomachs of bog bodies from the Ice Age.

Healing properties

Anti-inflammatory, the ingredients accelerate blood clotting, antispasmodic effect on the respiratory tract and are considered a radical scavenger.

Use in the kitchen

- Wild vegetables: Broad-pointed and medium plantain
- Herb: Wild herb pesto, wild herb salads
- Leaves have a lot of vitamin C
- Slightly mushroomy taste
- Good combination with daisies, sorrel, chervil, goutweed and dandelion
- Herb curd

As a medicinal herb

Tea and tinctures for catarrh of the respiratory tract, irritable cough, lung and bronchial complaints, supports asthma, strengthens the lung tissue in cases of pulmonary tuberculosis, and heavy smokers strengthen their lungs. Helps with insect bites: Grind leaves until green juice comes out. Lightly rolled plantain leaves can be applied as a poultice around sprained joints. This cools and reduces swelling.





Herbal hike



Stinging nettle

***Urtica dioica* - Urticaceae**

Common name

Common nettle, burn nettle, stinging nettle or nettle leaf, or just a nettle or stinger

Characteristics

The most important characteristic of the stinging nettle is the many hairs on which a small head sits. This breaks off at the slightest movement, the tip of the hair bores into the skin and a corrosive sap flows into the wound, causing itching and burning on the skin. Another special characteristic is that the nettle is dioecious. There is a male and a female plant. It also reproduces via its rhizomes. It has a widely branching network of thin root arms from which shoots grow. Ingredients: Nettle toxin, histamine, chlorophyll, vitamins A, C, D, formic acid, iron, calcium, manganese. They have a blood-purifying, blood-forming, haemostatic, hair-growing, metabolism-promoting effect. Because of the histamine, people with allergies and thyroid disease should be careful!

Use e.g. wild vegetable, seasoning herb, medicinal herb

- As a medicinal herb: as a tea the nettle juice or for the garden as nettle liquid manure.
- Urinary tract diseases, rheumatism, gout, dandruff, spring tiredness, loss of appetite, constipation, diarrhoea, stomach weakness, kidney weakness, diabetes (supportive), high blood pressure, Menstrual cramps, prostate adenoma
- As a wild vegetable
- Nettle leaves are good to use in the kitchen. To prevent the nettle from burning, boil it or roll over the leaves with a rolling pin to destroy the hairs.
- As a seasoning herb; especially the nettle seeds are good for seasoning.

Utilisation

The leaves root and seeds of the nettle can be used. As already mentioned, the leaves should be boiled or rolled over with a rolling pin to destroy the stinging hairs.



Herbal hike

White deadnettle

***Lamium album* - Lamiaceae**

Common name

In Chinese literature, it is known as the "herb of the smiling mother". Also called white nettle.

Characteristics

The flowers taste very sweet.

Only bumblebees can pollinate deadnettles because they have a long proboscis and they are small enough to crawl into the flower tube.

Ingredients: Mucilages, saponins, essential oils, tannins, flavonoids.

Deadnettle has anti-inflammatory, antibacterial, soothing, astringent and antipruritic properties and strengthens and tones the vaginal mucosa.

Use: e.g. wild vegetable, aromatic herb, medicinal herb.

In folk medicine:

- sitting baths for white fluoride
- Deadnettle burn gel for burns such as sunburn
- Men's tea for supportive treatment of diseases of the prostate gland

As cosmetics:

- Tea made from deadnettle is good for cleansing oily skin or acne.

Utilisation

The flowers, as well as the leaves, can be used.



Herbal hike

Yarrow

***Achillea millefolium* - Asteraceae**

Common name

"Eyebrow of Venus", common yarrow,
"herbe à charpentier" (carpenter's weed), ragweed
Middle English yarowe, from Old English gearwe;
akin to Old High German garwa yarrow.



Characteristics

The leaves are very fine and filigree. There is a small white prickly bristle at the end of the leaflet. The yarrow has a firm stem and a many-branched flower umbrella with many flower heads. The scent is aromatic and very strong in summer. Ingredients: Essential oil up to 1% with azulene, bitter substances, tannins, borneol, camphor, chamazulene, choline, eugenol, flavonoids, a furanocoumarin, iron, inulin, potassium, coumarin, limonene, salicylic acid, saponins. Astringent, antiseptic, wind-blowing, antispasmodic, anti-inflammatory (azulene), cicatrising, defence-increasing, balancing (nerves), haemostatic, blood-forming, blood-purifying and stimulating. Yarrow has azulene in the flower, leaves and stem (camomile only has it in the flower), but it does not have as much as camomile. Caution: Yarrow can cause allergy and meadow dermatitis in sensitive people (daisy!).

Use: e.g. wild vegetable, aromatic herb, medicinal herb.

- As a medicinal herb: Considered a herb of opposites. It acts as if the disease needs its healing. It has a balancing effect.
- It is considered a women's herb that helps with many women's ailments: regulates menstruation that is too strong or too weak.
- Bleeding wounds can be stopped (e.g. nosebleeds).
- Cures bladder and kidney problems
- Yarrow essential oil helps with painful menstruation and lower back pain.
- Used in the past, especially for wounds caused by iron.
- It heals injured and destroyed soils (like camomile) and strengthens other plants and the soil. Planted next to rosemary and lavender, it enhances their fragrance.

Workshops

-  are a time-limited event in which a **group deals intensively with a specific topic.**
-  aim at jointly **developing solutions and results** for a specific problem.
-  are a good way to **get other ideas** and to **express oneself creatively.**

Aircraft production

What is a business game?

- not a play, more like a big role play
- made-up situation with a true background
- A simulation game gives rules and roles.
- Different participants take on roles and try to achieve their goals.
- After the end of the simulation, the participants evaluate the situation together.



Questions:

- How is wealth created under capitalism?
- How is wealth distributed?
- What interests do workers and entrepreneurs have?

Content of the business game: Aircraft production

Several companies produce paper aeroplanes.

For this, entrepreneurs set up several companies, hire workers and produce paper planes with the help of paper, scissors and pens.

The paper planes are sold on the market - this way the companies create income by paying wages, new raw materials and creating profit.

Currency: Crowns

1 Crown:



10 Crowns:



Material:

Role descriptions, Paper, scissor, pens, crowns

The procedure of the simulation game

Distribution of roles between entrepreneurs and workers

Preparation: Entrepreneurs hire workers and prepare production.

Production: Companies produce paper planes, pay workers, invest...

Evaluation

Aircraft production

Preparation phase

Read role cards & clarify questions

Then:

Workers look for work.

Entrepreneurs give names to companies, buy raw materials on the market and hire workers.

The game begins when the market issues paper.

Production phase

Production in a monthly rhythm (one month = approx. 7 minutes).

The workers produce goods.

The entrepreneurs organise production, buy materials and sell goods on the market.

At the end of the month (bell), the entrepreneurs pay wages to the workers.

Copy the following page and cut out the role descriptions.

Aircraft production

Role 1: entrepreneur

Two companies exist in the simulation. Two entrepreneurs together run a company that produces paper aeroplanes. They own factories (table), tools/machines (pens, scissors, etc.), raw materials (paper) and start-up capital (40 kr.). They hire workers and manage the production.

Goals:

To become rich with your business. To run as successful a company as possible that can hold its own in the market. At the end of the game, the highest possible profit should have been made from the initial capital.



Role 2: Worker

The workers are looking for a good job.

They want secure jobs and high wages to be able to afford a good life.

The current wage is 1 crown per month (= 7 minutes).

Wages can change...



The product: paper planes

Companies make paper planes: folding papers, painting them and selling them at the market. The models are on the market.

Only good quality (well-folded planes) are accepted.



Role 3: the market

The market sets prices for raw materials and products.

Prices can fluctuate depending on supply and demand!

Products can be further developed and tried out on the market.

The market board shows current prices.

Important: The market does not negotiate!

Canned insect hotel

Material (2 hotels):

- 2 empty tins
- optionally some (spray) paint
- natural material, like reed, bamboo/straw
- secateurs
- screws for the suspension



Instructions:

First, clean the empty tins thoroughly and remove the paper band. If the paper is difficult to remove, put the cans in hot water for a short time and add a packet of baking soda. If you like, you can now add some colour to the outside of the tins.

For the filling, you will need hollow bamboo or reed sticks. Shorten them so that they don't stick out of the box, or only slightly. Cut them to size with the garden shears and put them into the tin for a test run.

You will need so many of them that they are close together in the tin and cannot move around. Then take the filling out again and put it aside.

If you want to build an insect hotel yourself, you also need to think about the right location. The location should (ideally) be slightly covered, for example on a shed wall and/or under a roof overhang. This prevents the natural material from soaking completely in the rain. The compass direction is also important: it is best to position the insect hotel facing south, so that the creepy-crawlies are always nice and warm and the nesting material dries again quickly after a shower.

Fasten the two (empty) boxes to the wood with two screws.

Now they just need to be fitted with the bamboo tubes and straw and the small but somehow beautiful insect hotels are ready! Alternatively, you can also hang them up with a string.



Find a person who...

Rules:

For each field and the respective behaviour/ characteristics find a person!

Each person can only be placed once in a specific field!

5 vertical, horizontal or diagonal: BINGO!!!

Did fly less than 10 times	Has been on a climate protest	Did join a clean up day	Does not use any streaming platform	Rather buys returnable bottles than disposable bottles
Rather takes the train than the car	Buys mainly regional and seasonal products	Has been on a cruise ship	Uses a cotton bag for shopping	Already did dumpster diving
Buys second hand clothes	Eats vegan	Does not own a car	Uses the bike to get to work/ university/ school	Already repaired a damaged piece of clothing
Already baked their own bread	Did fly more than 10 times	Did already hitchhike	Grows vegetables/ fruits in their garden	Already did vacations on a farm
Already did foodsharing and saved food	Only has been on holiday within Europe	Already read a climate report	Eats vegetarian	Uses electricity from renewable energies

Clothes production

Material:

- Role descriptions
- World map

Introduction:

What thoughts do you have before buying clothes? What is important to you?

Make a connection:

Where do you take clothes you no longer want in your home country? How much does the cheapest T-shirt cost in your home country?

Input:

The journey of a T-shirt - production & transport

We buy clothes because we like them. In the retail shop around the corner and especially often online. But before we wear a T-shirt on our skin, there is a long journey behind the product. We show the most important stations on the long way from raw material to the shirt. Nowadays, a piece of clothing has a whole journey around the world behind it before it can be bought in our shops. We have compared the journey of a T-shirt with that of a standard shirt.

The journey of a standard shirt

*The countries we list are not scientifically based. We have included statistics, yet there are not many figures on this. Only a few manufacturers are transparent in their supply chain and tell the consumer where which production step is implemented. So no one can calculate exactly what distance a product has travelled.

Cards for participants:



Clothes production

<p><u>Raw material extraction:</u> A large proportion of products are made from cotton.</p>	<p><u>Yarn production:</u> The raw material must now be spun into yarn. From here, the journey continues.</p>	<p><u>Fabric production:</u> The fabric is produced from yarn with the help of knitting machines. This shows that cotton has a natural colouring: The fabric rolls are now beige.</p>
<p><u>Bleaching & Dyeing:</u> The naturally beige fabric rolls are bleached into white fabric. After bleaching, the fabric is washed, dried and then dyed in the required colour. In a few cases, the fabric for the shirt is also sewn in the same factory. But in most cases, another country is repeatedly visited for the making up (sewing the products together).</p>	<p><u>Confection/ Sewing:</u> The individual pieces are sewn together to form a T-shirt, for example. Since garment production is the last step in the textile supply chain, the "Made in" label is also sewn in here.</p>	<p><u>Trade:</u> The product reaches the final stores.</p>

Guess how long the journey of the t-shirt was all in all.

Raw material extraction - USA

A large proportion of products are made from cotton. Since cotton grows best in tropical and subtropical regions, warm countries are often considered for their cultivation. These include India, China, Pakistan, African countries like Burkina Faso and the USA. The USA, for example, produces up to 3,000 tonnes of cotton a year. China and India are among the top producers. Once the cotton has been harvested and cleaned, it is transported from the large plantations in Virginia to the coast, where it is then loaded onto container ships. The ship travels about 10,000 km to Turkey.

Yarn production - Turkey

The raw material must now be spun into yarn. In many cases, this takes place in Turkey. It has many companies that specialise in yarn production. Last but not least, Turkey is also known for the splendour of its carpets. The country has a broad base in the textile industry. This is where the robust fibre is made from cotton, which is similar to cotton wool. From here, the journey continues to Taiwan, 10,650 km (driving distance) away.

Clothes production

Fabric production - Taiwan

In Taiwan, the fabric is produced from yarn with the help of knitting machines. This shows that cotton has a natural colouring: The fabric rolls are now beige and are loaded onto a container ship.

Bleaching & Dyeing - China

After 2,700 km, the fabric reaches China. In the Chinese textile factories, the naturally beige fabric rolls are bleached into white fabric under questionable working conditions and the lowest wages, using a lot of chemicals and usually without protective clothing. After bleaching, the fabric is washed, dried and then dyed in the required colour. In a few cases, the fabric for the shirt is also sewn in the same factory. But in most cases, another country is repeatedly visited for the making up (sewing the products together).

Confection/ Sewing - Bangladesh

From China to Bangladesh, another distance of about 3,450 km is covered. Here, the individual pieces are sewn together to form a T-shirt, for example. Since garment production is the last step in the textile supply chain, the "Made in" label is also sewn in here. Depending on where the product was sewn, different countries appear on the washing label. Since Bangladesh has again become "too expensive" for the clients due to the slowly rising local wages, Korea, Cambodia, PRC or Vietnam are currently increasingly written on the washing labels.

After these steps, the good piece is a pure basic T-shirt. Without print and motif.

Trade - Germany

To get to the shops in Germany, you have to add another 7,250 km (as the crow flies) to the distance a T-shirt travels.

Commercially available clothing makes a round-the-world journey and covers a distance of about 34,225 km. Once around the earth at the equatorial level would mean a distance of 40,075 kilometres. This would still be about 5,000 kilometres short. Is that necessary for a basic "worth" of three to five euros?

Clothes production

One step forward

Different groups and people are involved in the production, disposal and use of T-shirts, occupying different positions and living in very different structural conditions: Workers in the extraction and recycling of raw materials and the production of T-shirts, managers in companies, speakers from non-governmental organisations, potential users worldwide, etc. This exercise is designed to raise awareness of structural inequality. It enables participants to perceive different perspectives and strengthens their capacity for empathy. Participants can think about injustice, privilege or disadvantage, and discuss different (pre)assumptions and possible interpretations and prejudices.

Procedure:

1. Form a circle and let them understand their role. Ask everyone individually if they understood their role.
2. By chance, the participants each receive a role card and line up in a row. If there are more participants than roles, double distribution is possible (double distribution is also possible on purpose to discuss interpretations, prejudices, stereotyping etc.).
3. The participants read through their role descriptions. Ask the participants to form a picture of the person: What could the person look like, how does he/she live, and what wishes, dreams, and worries could he/she have? : What was your childhood like? What kind of house did you live in? What is your everyday life now? What do you do in the morning, afternoon, and evening? Where do you socialise? Where do you live now? What do you do in your free time?
4. Read out the situation questions one after the other. The participants who can answer YES to each question from the perspective of their role take a step forward. If the answer is NO, they stand still.

Clothes production

5. In the end, the participants stand in their respective positions. “Step out of your role”. In a first evaluation, ask the participants to read out their role description and to say on which questions it was clear for them to take a step/not to take a step, and when it was difficult for them.

6. Dissolve the situation and positioning and transfer it into a general evaluation and discussion based on possible guiding questions:

- Were there roles that were privileged/disadvantaged?
- To what extent can the roles themselves change their situation?
- What could they change themselves and how?
- Does it seem possible to you, to change things? Und als Nachfrage dann „Why?“ bzw. „Why not?“
- To what extent can these roles exist in real life?
- Which (basic) needs do people have and which remain unsatisfied in the respective roles?
- What would have to be done to strengthen the structurally disadvantaged?
- What would have to be done to eliminate injustices in the production of clothing?

Situations:

-I can read and write.

-I can get to school/university/training/work by public transport.

-I can live where I want.

-I will receive a sufficient pension later on.

-I can choose my profession freely.

-My opinion is taken seriously.

-I have health insurance.

-I can demonstrate and file complaints or petitions against government positions.

-I can complain about bad conditions at work in an appropriate place.

-I can move freely internationally, i.e. across national borders.

Clothes production

- I can afford international travel.
- I have enough free time to pursue my hobbies.
- I can afford medical care and medication.
- I can afford national travel.
- I can or could go to school.
- I have a mobile phone, a games console and a notebook or PC.
- I have daily access to the internet.

Role descriptions to copy/print:

<p>20-year-old Migrant worker in China. At 18, she left her village to work in a fashion factory where she has to sew 85 tags into T-shirts per hour. If she does not reach this quota, she has to work unpaid until she has made the required amount. She shares a small dormitory with seven other young women. She earns little and cannot send money to her family in the country. At the beginning of the year, she was very ill and had to spend 80% of her salary on medical expenses.</p>	<p>65-year-old manager in Taiwan. He is the owner of one of the world's largest manufacturers of fabrics. About one million people work in his companies. His fortune is estimated at 5.5 billion US dollars. He owns a villa in the Czech Republic worth 30 million US dollars. His son works in the film industry and his daughter in finance. He founded his company with a loan from his mother.</p>	<p>54-year-old manager in the USA. He is the executive chairman of one of the largest clothing manufacturers in the world. His annual salary is estimated at over 70 million US dollars. He studied economics and mechanical engineering and worked in high positions at numerous well-known clothing manufacturers. He was the first American top manager to openly admit his homosexuality.</p>
<p>20-year-old boy in China. He works in a textile factory, where the naturally beige fabric rolls are bleached into white fabric under questionable working conditions and the lowest wages, using a lot of chemicals and usually without protective clothing. After bleaching, the fabric is washed, dried and then dyed in the required colour.</p>	<p>14-year-old waste worker in Ghana. He works after school at a rubbish dump in <u>Agbogbloshie</u>, where he sorts rubbish together with other young people. The work is physically demanding. He lives in an informal settlement near the dump.</p>	<p>25-year-old student and activist with a non-governmental organisation in Ghana. He studies business administration in <u>Legon</u>, Ghana, and is involved with and for rubbish workers and slum dwellers. He represents them at important meetings with other stakeholders and the media. He grew up in a slum in Accra, Ghana.</p>

Clothes production

<p>12-year-old schoolboy in Berlin, Germany. He lives with his parents and his little sister in a 3-room rented flat. Both parents are job-seekers and receive unemployment benefits. He attends a secondary school and wants to start an apprenticeship as an entrepreneur after graduation. He dreams of a trip to California.</p>	<p>16-year-old schoolgirl in Berlin, Germany. She lives with her parents in a five-room condominium with a garden. Her father is a plastic surgeon. She attends a grammar school and would like to study medicine after graduating from high school. The family spent their summer holidays in Miami, Florida.</p>	<p>19-year-old daughter of a bank employee in Nairobi, Kenya. She is just starting her medical studies and finances them with various temporary jobs. She lives with her parents and would like to study abroad for a semester.</p>
<p>20-year-old employee of a fast food chain in the USA. Since leaving school, he has been working full-time at the fast food restaurant at the cash register and in the kitchen. He lives with his parents and supports them financially. His mother is unemployed. His father recently had to take a pay cut.</p>	<p>21-year-old student in the USA. She is studying Bachelor of Business Administration and lives on campus. Her parents pay her tuition fees (around 20 thousand US dollars per year) and the costs for accommodation and a dormitory (around 10 thousand US dollars per year). She earns her pocket money through temporary jobs.</p>	<p>32-year-old freelance speaker in Berlin, Germany. She works in global contexts in the IT industry and as a graphic designer for non-governmental organisations. She lives with her partner in a shared flat with three other flatmates.</p>

Showing approaches to solutions

Draw a shopping basket and invite the participants to write down what alternatives there are to wearing clothes longer or what to look for when buying clothes. Collect ideas.

Conclusion

Ask the participants what we did, how they feel now and what they take away?

Ask them for feedback (you can also use a feedback method).

Name:

Date:



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**A foodsharing
akademie**

Wir klammern Bildung nicht aus



Food-BINGO

Find a person who...

already did dumpster diving	is cooking several times a week	has ever eaten something whose best- before date had expired by over a year	has already cooked something from leftovers	knows other ways to waste less food
buys food at a weekly market	lives vegan	eats the greens of radishes	pays attention to the country of origin when buying it	knows the difference between best before date and use by date
has already cooked/ preserved something	likes the stalk of broccoli	licks her plate	knows what to do with very brown bananas	likes to cook
can distinguish food waste from food loss	eats potatoes rather than rice	further processes dry baked goods	grow your own vegetables	buys bread at a bakery
finds food important	spends too much money on food in his opinion	buys regionally and seasonally	eats leftovers the next day	lives vegetarian

Food-Footprint

Instructions:

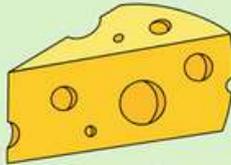
Copy this page and cut the squares apart. Mix them well and then try to find the right pairs. Also possible with two groups playing against each other. What surprised you? Did you match everything up correctly?



1 kilogram bread

Produces 0.77 kg CO₂ emission

This corresponds to:
 3.5 km driving
 or 6.37 km train ride



1 kilogram cheese

Produces 8.5 kg CO₂ emission

This corresponds to:
 15.7 km driving
 or 28.2 km train ride



1 kilogram milk

Produces 0.94 kg CO₂ emission

This corresponds to:
 4.56 km driving
 or 8.2 km train ride

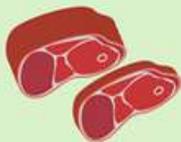


1 kilogram fine bakery products

Produces 0.94 kg CO₂ emission

This corresponds to:
 5.74 km driving
 or 10.3 km train ride

Food-Footprint



1 kilogram beef

Produces 13.3 kg CO₂ emission

This corresponds to:
 70 km driving
 or 369 km train ride



1 kilogram butter

Produces 23.8 kg CO₂ emission

This corresponds to:
 126 km driving
 or 661 km train ride



1 kilogram vegetables

Produces 0.15 kg CO₂ emission

This corresponds to:
 0.8 km driving
 or 4 km train ride



1 kilogram tomatoes

Produces 0.34 kg CO₂ emission

This corresponds to:
 2 km driving
 or 3.7 km train ride

Globalisation

Material:

Role descriptions

Instructions:

The production, disposal and use of mobile phones different groups and people are involved who different positions and live in very different structural conditions:

Workers in the extraction and recycling of raw materials and the production of mobile phones, managers in companies, speakers from non-governmental NGOs, potential mobile phone users worldwide, etc. This exercise serves to raise awareness of structural inequality. It allows the participants to perceive different perspectives and strengthens their ability to empathise. Participants can reflect on injustice, privilege or disadvantage, reflect injustice, privilege or disadvantage, and discuss different (pre-)assumptions and possible interpretations and prejudices.



Globalisation

Procedure:

1. By chance, the participants each receive a role card and line up in a row. If there are more participants than roles, double distribution is possible (double distribution is also possible on purpose to discuss interpretations, prejudices, stereotyping etc.).
2. The participants read through their role descriptions. Ask the participants to form a picture of the person: What could the person look like, how does he/she live, and what wishes, dreams, and worries could he/she have?
3. Read out the situation questions one after the other. The participants who can answer YES to each question from the perspective of their role take a step forward. If the answer is NO, they stand still.
4. In the end, the participants stand in their respective positions. In a first evaluation, ask the participants to read out their role description and to say on which questions it was clear for them to take a step/not to take a step, and when it was difficult for them.
5. Dissolve the situation and positioning and transfer it into a general evaluation and discussion based on possible guiding questions:
 - Were there roles that were privileged/disadvantaged?
 - To what extent can the roles themselves change their situation?
 - What could they change themselves and how?
 - If you do not believe in the possibility of change, why does it not seem possible to you, what could be the (structural) reasons?
 - To what extent can these roles exist in real life?
 - Which (basic) needs do people have and which remain unsatisfied in the respective roles?
 - What would have to be done to strengthen the structurally disadvantaged?
 - What would have to be done so that injustices regarding mobile phones are eliminated?

Globalisation

Situational questions:

- Can you read and write?
- Can you get to school/university/training/work by public transport?
- Can you live where you want?
- Will you receive a sufficient pension later on?
- Can you choose your profession freely?
- Will your opinion be taken seriously?
- Do you have health insurance?
- Can you demonstrate and file complaints or petitions against government positions?
- Can you complain about bad conditions at work in an appropriate place?
- Can you move freely internationally, i.e. across national borders?
- Can you afford international travel?
- Do you have enough free time to pursue your hobbies?
- Can you afford medical care and medication?
- Can you afford national travel?
- Can you or could you go to school?
- Do you own a mobile phone, a games console and a notebook or PC?
- Do you own any of the devices (mobile phone, game console or notebook / PC)?
- Do you have daily access to the internet?



Globalisation

<p>20-year-old Migrant worker in China. At 18, she left her village to work in an electronics factory, where she puts 855 stickers on mobile phone chargers per hour. If she misses this quota, she has to work unpaid until the required amount is done. She shares a small dormitory with seven other young women. She earns little and cannot send money to her family in the country. At the beginning of the year, she was very ill and had to spend 80% of her salary on medical expenses.</p>	<p>65-year-old manager in Taiwan. He is the owner of one of the world's largest manufacturers of electronics and computer parts. About one million people work in his companies. His fortune is estimated at 5.5 billion US dollars. He owns a villa in the Czech Republic worth 30 million US dollars. His son works in the film business, his daughter in the financial sector. He founded his company with a loan from his mother.</p>	<p>54-year-old manager in the USA. He is the executive chairman of the board of one of the largest mobile phone manufacturers in the world. His annual salary is estimated at over 70 million US dollars. He studied economics and mechanical engineering and worked in high positions at numerous well-known electronics manufacturers. He was the first American top manager to openly admit his homosexuality.</p>
<p>13-year-old boy in eastern Congo. He works in the mining industry without protective clothing, hauling sacks of cobalt rock. He works up to eleven hours a day, six days a week. He earns between two and four euros a day. He lives with his parents and four siblings in a village about 40 kilometres away from the mine. He used to go to school, but then he had to earn money to support his family.</p>	<p>14-year-old e-waste worker in Ghana. He works after school at a rubbish dump in <u>Agbogbloshie</u>, where he collects metal parts from e-waste together with other young people. The work is physically demanding, the cart is loaded with up to 50kg of metal. He sells the collected metal to middlemen. He lives in an informal settlement in the area of the dump.</p>	<p>25-year-old student and activist with a non-governmental organisation in Ghana. He is studying business administration in <u>Legon</u>, Ghana, and is involved with and for e-waste workers and slum dwellers. He represents them at important meetings with other stakeholders and the media. He grew up in a slum in Accra, Ghana.</p>
<p>12-year-old schoolboy in Berlin, Germany. He lives with his parents and little sister in a 3-room rented flat. Both parents are looking for work and receive unemployment benefits. He attends a secondary school and wants to start an apprenticeship as a mechanic after he has passed his final exams. He dreams of a trip to California.</p>	<p>16-year-old schoolgirl in Berlin, Germany. She lives with her parents in a five-room condominium with a garden. Her father is a plastic surgeon. She attends a grammar school and would like to study medicine after graduating from high school. The family spent their summer holidays in Miami, Florida.</p>	<p>19-year-old daughter of a bank employee in Nairobi, Kenya. She is just starting her medical studies and finances them with various temporary jobs. She lives with her parents and would like to study abroad for a semester.</p>
<p>20-year-old employee of a fast food chain in the USA. Since leaving school, he has been working full time at the fast food restaurant at the cash register and in the kitchen. He lives with his parents and supports them financially. His mother is unemployed. His father recently had to take a pay cut.</p>	<p>21-year-old student in the USA. She is studying Bachelor Business Administration and lives on campus. Her parents pay her tuition fees (around 20 thousand US dollars per year) and the costs for accommodation and a dormitory (around 10 thousand US dollars per year). She earns her pocket money through temporary jobs.</p>	<p>32-year-old freelance speaker in Berlin, Germany. She works on global contexts in the IT industry and as a graphic designer for non-governmental organisations. She lives with her partner in a shared flat with three other flatmates.</p>

Hand wash paste

Material (one glass):

- 100 g bicarbonate of soda
- 25 ml water (25 g)
- optional 1-2 teaspoons soft soap
- optional 5-10 drops of essential oil, (tea tree, lemon or lavender oil, for extra care)



Instructions:

1. Pour baking soda into a screw-top jar or ointment jar.
2. Add water and mix everything into an even paste. You can easily make your hand washing paste for dirty hands after gardening. The paste removes dirt and even grease effectively and cares for the hands.
3. Add soft soap and essential oil as needed and stir in.

The washing paste is easy to use: simply take a small amount and spread it on your hands. Add a little more water as needed and rub vigorously over the palms and fingers. Finally, rinse with clean water. Not only will your hands be clean, but they will also be beautifully soft as a pleasant side effect. For even more care, you can pamper them after cleaning with a DIY lotion, for example.

Due to the high sodium bicarbonate content, the washing paste can easily be kept for several weeks. If you need an even longer shelf life, you can replace the water with vodka, for example.

Headstand brainstorming

Many problems arise in the production, use and disposal of mobile phones: Environmental and health damage, as well as violation of human and labour rights in the mining of raw materials, production of mobile phones and recycling. Mobile phones are increasingly used as disposable articles and the mountains of electronic waste are growing.



Material:

Pens, moderation cards, pin board, pins

1. Divide the participants into two groups by lot/random (e.g. counting 1-2-1-2..., drawing different colour cards).
2. assign the groups their respective work task:
 - "Think of ways in which we can..."
 - treat working people in the mobile phone industry badly and also endanger their health.
 - effectively and quickly endanger and destroy the environment in the mobile phone industry.
 - It can be actions on all levels (individual, societal, governmental or international). Be creative and write down what you can think of. It doesn't matter if these methods already exist or if you are inventing them."
3. Individually, students write down their ideas on moderation cards - one idea per card (5 to 10 min).
4. Each participant presents his/her ideas in plenary and you arrange the cards thematically on a pinboard. It is important to clarify on which level (individual, societal, national or international) the suggestions are to be classified and whether the methods are already being practised or have been newly invented.

How Big is My Ecological Footprint?

Measuring their dependence on nature on a typical day can give students a new understanding of the connection between personal lifestyle choices and the health of the planet

by **Tim Turner**

Subject areas: mathematics, science, social studies

Key concepts: ecological footprint, lifestyle, sustainability

Skills: lifestyle analysis, critical thinking

Location: indoors

Time: 1 hour

Materials: chart paper, colored markers (blue, green, brown, and black), copy of Personal Eco-Footprint Calculator for each student

 Each of us consumes some of the Earth's products and services every day. How much we take depends on the ways in which we satisfy our needs and wants — the many habits that together create our lifestyle. We can ask ourselves these questions to get a better sense of what these habits are: How much water do I use on a typical day? What do I eat and how much do I eat? How much food do I waste? How do I transport myself and how far do I go? How much clothing and footwear do I have and how often do I replace it? What and how much stuff do I buy? How much energy and materials are required to keep me dry and warm/cool? How much garbage do I produce? How much land and energy is used for my recreational activities?

Our answers to these questions reflect the demand that each of us places on nature. In the 1990s, sustainability gurus Mathis Wackernagel and Bill Rees coined the term “ecological footprint” to refer to the load or demand that we place on the Earth's resources. An ecological footprint is a measure of how much of the Earth's biologically productive land and water is needed to produce our food, material goods, and energy, and to absorb our waste.



Students calculating their ecological footprints at the Sea to Sky Outdoor School in British Columbia.

Having students calculate their ecological footprint gives them a concrete understanding of their own personal impact on the Earth's systems and offers a means of assessing the sustainability of their lifestyles. More than that, engaging students in an ecological footprint analysis elicits curiosity, enthusiasm, and genuine interest in taking action to reduce the demand they place on nature. Students like the fact that the analysis focuses on their own lives, and they understand its clear message: that their choices — and hence they, themselves — can make a difference. Calculating one's ecological footprint reinforces the notion that sustainability is a journey and not a destination and that it is participatory, not a spectator sport. It serves as a simple guide to living, working, and playing in ways that don't cost the Earth.

How much Earth do we have?

Our “living” Earth has a surface area of 51 billion hectares, but less than one quarter of this — under 12 billion hectares — is biologically productive for human use. This is the amount of land available on the planet to



provide all of the food, water, and other materials that we need to support ourselves. To help students visualize this, create a pie graph that shows how the Earth's surface area is divided.

1. Begin by drawing a large circle on chart paper. Explain that the circle represents the surface area of the Earth.
2. Draw lines to divide the pie into land and water: 28 percent of the Earth's surface is land and 72 percent is water.
3. Focusing on the 28 percent of the pie that is land:
 - color about two-thirds of the land area green to represent the 19 percent of Earth's surface that is biologically productive for human use (i.e., land that is fertile enough to support agriculture, forests, or animal life).
 - color the other third of the land area brown to represent the 9 percent of Earth's surface that is marginally productive or unproductive for human use (e.g., land that is paved, covered by ice, lacks water, or has unsuitable soil conditions).
4. Explain that processes such as desertification, soil erosion, and urbanization are constantly reducing the amount of biologically productive land on Earth. To show this, draw small brown tentacles reaching from the border of the brown segment into the green segment.
5. Now, focusing on the water realm:
 - color about one-twentieth of the water section blue to show that 4 percent of the Earth's surface is lakes and oceans that are biologically productive for human use (i.e., yield more than 95 percent of the global fish catch).
 - color the remaining section black to show that 68 percent of the Earth's surface is ocean that is marginally productive or unproductive for human use (i.e., yields only about 5 percent of the global fish catch).
6. Draw black "tentacles" from the unproductive-water segment to the productive-water segment to represent processes that contribute to loss of

fertility in lakes and oceans. These include the destruction of coral reefs, oil spills, overfishing (of both marine and lake species), and shoreline development.

7. This leaves a pie chart featuring four segments of varying sizes — an excellent picture of our "living" planet. Label the sections, noting the percentage of the Earth's surface that each represents and listing the forces represented by the "tentacles."

Wrap-up: Remind students that only the green and blue sections — about 23 percent of the Earth's surface — are biologically productive. This small percentage of land and water is all we have to produce all of our food, materials, and energy, and to absorb our waste. These

precious slices of the Earth's surface are also needed by the other 10 million or more species with whom we share the planet.

Calculating a footprint

Have students complete the Personal Eco-Footprint Calculator to estimate how much of the Earth's biologically productive land and water is needed to support their own lifestyles. The calculator is divided into eight categories that represent the many ways that we "consume" nature each day. Explain to students that it is not a scientific survey, but it

does give a good approximation of the impact of one's lifestyle on a typical day. More detailed lifestyle analyses include other considerations that usually increase the size of one's ecological footprint. Therefore, the calculation derived from this calculator should be seen as a simplification and an underestimate of reality.

Students may point out that some lifestyle choices, such as the size of their house or the number of family cars, are not under their direct control. Explain that the calculator is meant to provide a snapshot of their lives at present, and that the baseline information they gather will help them to monitor the impact of changes they make in their lifestyles. They may, for example, make different choices if they purchase their own house or car in the future. The connection between these lifestyle considerations and their future ecological footprints is an important learning outcome of using the Footprint Calculator.

Three Facts and One Inescapable Conclusion!

Fact #1: Of the 51 billion hectares of the Earth's surface, only 12 billion hectares are biologically productive and therefore capable of providing resources and treating waste. That's 10 billion hectares of land and 2 billion hectares of water.

Fact #2: The human population is 6.3 billion and climbing. Of the biologically productive land and water that is available, our average Earth share is 1.9 hectares per person (not including the needs of all other life forms). As our population grows, we must either reduce our average Earth share or find more Earths to inhabit.

Fact #3: The amount of biologically productive land on Earth is in decline owing to urbanization, overgrazing by livestock, deforestation, toxic contamination, poor agricultural practices, desertification, and global climate change.

Inescapable conclusion: Less is more: we all need to shrink our ecological footprint.



Personal Eco-Footprint Calculator

Procedure: Complete each of the charts for a typical day in your home community. Add the points on each chart to obtain a subtotal for that category, and transfer it to the summary chart. Use the grand total to calculate your ecological footprint.

Water Use

- My Score** _____
- My shower (or bath) on a typical day is: _____
 No shower / no bath (0)
 1–2 minutes long / one-fourth full tub (50)
 3–6 minutes long / half full tub (70)
 10 or more minutes long / full tub (90)
 - I flush the toilet: _____
 Every time I use it (40)
 Sometimes (20)
 - When I brush my teeth, I let the water run. (40) _____
 - I washed the car or watered the lawn today. (80) _____
 - We use water-saving toilets (6–9 liters/flush). (-20) _____
 - We use low-flow showerheads (-20) _____
 - I use a dishwasher on a typical day. (50) _____

Subtotal: _____

Food

- My Score** _____
- On a typical day, I eat: _____
 Beef (150/portion) _____
 Chicken (100/portion) _____
 Farmed fish (80/portion) _____
 Wild fish (40/portion) _____
 Eggs (40/portion) _____
 Milk/dairy (40/portion) _____
 Fruit (20/portion) _____
 Vegetables (20/portion) _____
 Grains: bread, cereal, rice (20/portion) _____
 - _____ of my food is grown locally. _____
 All (0)
 Some (30)
 None (60)
 - _____ of my food is organic. _____
 All (0)
 Some (30)
 None (60)
 - I compost my fruit/vegetable scraps and peels. _____
 Yes (-20)
 No (60)
 - _____ of my food is processed. _____
 All (100)
 Some (30)
 None (0)
 - _____ of my food has packaging. _____
 All (100)
 Some (30)
 None (0)
 - On a typical day, I waste: _____
 None of my food (0)
 One-fourth of my food (100)
 One-third of my food (150)
 Half of my food (200)

Subtotal: _____

Transportation

- My Score** _____
- On a typical day, I travel by: _____
 Foot (0)
 Bike (5 per use)
 Public transit (30 per use)
 Private vehicle (200 per use)
 - Our vehicle's fuel efficiency is _____ liters/100 kilometers (gallons/60 miles). _____
 less than 6 liters / 2 gallons (-50)
 6–9 liters / 2–2½ gallons (50)
 10–13 liters / 3–3½ gallons (100)
 More than 13 liters / 3½ gallons (200)
 - The time I spend in vehicles on a typical day is: _____
 No time (0)
 Less than half an hour (40)
 Half an hour to 1 hour (60)
 More than 1 hour (100)
 - How big is the car in which I travel on a typical day? _____
 No car (-20)
 Small (50)
 Medium (100)
 Large (SUV) (200)
 - Number of cars in our driveway? _____
 No car (-20)
 1 car (50)
 2 cars (100)
 More than 2 cars (200)
 - On a typical day, I walk/run for: _____
 5 hours or more (-75)
 3 to 5 hours (-25)
 1 to 3 hours (0)
 Half an hour to 1 hour (10)
 Less than 10 minutes (100)

Subtotal: _____

Shelter

- My Score** _____
- Number of rooms per person (divide number of rooms by number of people living at home) _____
 Fewer than 2 rooms per person (10)
 2 to 3 rooms per person (80)
 4 to 6 rooms per person (140)
 7 or more rooms per person (200)
 - We share our home with nonfamily members. (-50) _____
 - We own a second, or vacation home that is often empty. _____
 No (0)
 We own/use it with others. (200)
 Yes (400)

Subtotal: _____



Personal Eco-Footprint Calculator

Energy Use

1. In cold months, our house temperature is: _____
 Under 15°C (59°F) (-20)
 15 to 18°C (59 to 64°F) (50)
 19 to 22°C (66 to 71°F) (100)
 22°C (71°F) or more (150)
2. We dry clothes outdoors or on an indoor rack. _____
 Always (-50)
 Sometimes (20)
 Never (60)
3. We use an energy-efficient refrigerator. _____
 Yes (-50)
 No (50)
4. We use compact fluorescent light bulbs. _____
 Yes (-50)
 No (50)
5. I turn off lights, computer, and television when they're not in use. _____
 Yes (0)
 No (50)
6. To cool off, I use: _____
 Air conditioning: car / home (30 for each)
 Electric fan (-10)
 Nothing (-50)
7. Outdoors today, I spent: _____
 7 hours (0)
 4 to 6 hours (10)
 2 to 3 hours (20)
 2 hours or less (100)

Subtotal: _____

Clothing

1. I change my outfit every day and put it in the laundry. (80) _____
2. I am wearing clothes that have been mended or fixed. (-20) _____
3. One-fourth of my clothes are handmade or secondhand. (-20) _____
4. Most of my clothes are purchased new each year. (120) _____
5. I give the local thrift store clothes that I no longer wear. _____
 Yes (0)
 No (100)
6. I buy hemp instead of cotton shirts when I can. (-10) _____
7. I never wear ___ % of the clothes in my cupboard. _____
 Less than 25% (25)
 50% (50)
 75% (75)
 More than 75% (100)
8. I have ___ pairs of shoes. _____
 2 to 3 (20)
 4 to 6 (60)
 7 or more (90)

Subtotal: _____

My Score

Stuff

1. All my garbage from today could fit into a: _____
 Shoebox (20)
 Large pail (60)
 Garbage can (200)
 No garbage created today! (-50)
2. I reuse items rather than throw them out. (-20) _____
3. I repair items rather than throw them out. (-20) _____
4. I recycle all my paper, cans, glass, and plastic. (-20) _____
5. I avoid disposable items as often as possible. _____
 Yes (-10)
 No (60)
6. I use rechargeable batteries whenever I can. (-30) _____
7. Add one point for each dollar you spend in a typical day. _____
 Today was a Buy Nothing Day (0) _____

Subtotal: _____

Fun

1. For typical play, the land converted into fields, rinks, pools, gyms, ski slopes, parking lots, etc., added together occupy: _____
 Nothing (0)
 Less than 1 hectare / 2½ acres (20)
 1 to 2 hectares / 2½ to 5 acres (60)
 2 or more hectares / 5 or more acres (100)
2. On a typical day, I use the TV or computer _____
 Not at all (0)
 Less than 1 hour (50)
 More than 1 hour (80)
3. How much equipment is needed for typical activities? _____
 None (0)
 Very little (20)
 Some (60)
 A lot (80)

Subtotal: _____

My Score

My Score

Summary

Transfer your subtotals from each section and add them together to obtain the grand total.

Water use _____
 Food _____
 Transportation _____
 Shelter _____
 Energy Use _____
 Clothing _____
 Stuff _____
 Fun _____

Grand Total: _____

My ecological footprint is:
 Grand Total divided by 100 = _____ hectares
 (To convert to acres, multiply hectares by 2.47)



Sharing Earth fairly

Once students have calculated their ecological footprints, they can compare their results with others and determine whether the Earth could sustain the human population if everyone lived as they do.

1. Have students consider how their results compare with the following average ecological footprints:
United States: 10 hectares (24 acres) per person
Canada: 9 hectares (22 acres) per person
Italy: 4 hectares (9 acres) per person
Pakistan: less than 1 hectare (2 acres) per person
2. Have students calculate how much of Earth's biologically productive land is available to each person on the planet. To do this, they divide the total area of biologically productive land (12 billion hectares) by the number of people on the planet (about 6.3 billion). This amount (1.9 hectares / 4.7 acres per person) is known as the Average Earth Share.
3. Have students calculate how many Earths would be needed if every human had an ecological footprint the size of theirs. To do this, they divide their ecological footprint by the Average Earth Share. (If the ecological footprint is in acres, divide by 4.7; if it is in hectares, divide by 1.9.) Discuss: How many additional Earths would be needed to meet human demands if everyone lived as we do? What insights come from this knowledge?

Wrap-up: To follow up, remind students that the limited amount of biologically productive land that supports us also needs to provide food, water, and shelter for more than 10 million other species. These needs were not factored into the Average Earth Share, which represents the needs of humanity only. Consider, too, the implications of living in a world where 80 percent of the human family use 20 percent of available resources, while 20 percent (i.e., those of us in wealthier countries) use 80 percent of available resources.

Extensions:

- An ecological footprint calculation provides a baseline from which to measure progress toward a smaller footprint and a more sustainable lifestyle. Challenge students to set goals for themselves in each lifestyle category (i.e., to eat less meat or to spend more time outdoors) and have them calculate their footprints again after an agreed-upon interval of time.

Tim Turner



- The Personal Eco-Footprint Calculator assumes that the habits identified reflect how one always lives; however, we know that lifestyle is influenced by factors such as a person's age or time of year, and an ecological footprint will expand or shrink accordingly. Many residential outdoor and environmental education centers ask visiting students to calculate their ecological footprint twice: the first calculation is based on their activities on a typical day at the center, while the second is based on their daily routines and habits at home. Students often find that their ecological footprint is as much as 400 percent larger at home, yet most agree that the simplified living in the outdoor center ranks high on their quality-of-life index. This exercise provides a helpful comparison that debunks the myth that a person's quality of life is directly proportional to consumption.

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RESOURCES

- Wackernagel, Mathis, and William Rees. *Our Ecological Footprint: Reducing Human Impact on the Earth*. New Society Publishers, 1995.
- <www.ecofoot.net> The most extensive site for educators interested in using the ecological footprint tool with their students.
 - <www.panda.org/news_facts/publications/general/livingplanet/> WWF's Living Planet Report lists the ecological footprints of 150 countries.
 - <www.davidsuzuki.org> David Suzuki's Nature Challenge identifies the ten best things one can do to protect nature. This is an excellent follow-up project to help students in their ongoing efforts to shrink their ecological footprint.
 - <www.seatosky.bc.ca> The Sea to Sky Outdoor School website provides access to such teaching resources as the Ecospherotron, Lifesavers, and Earth 100, which complement the ecological footprint.

Pickle vegetables

Material:

- 3 onions
- 3 carrots
- 1 kg small courgettes
- 2 red and 2 yellow peppers
- 1 hot pepper
- 250 g cauliflower
- 2 cloves of garlic
- 500 ml white wine vinegar
- 200 g sugar
- 2-3 tsp salt
- 1 tsp mustard seeds
- 1 tbsp cucumber spice (ready-made spice mix for pickling)
- 1/2 tsp ground turmeric two large screw-top jars (e.g. these)



Instructions:

You can expand or reduce the recipe as you like. The important thing is to choose vegetables that taste good together. Wash and peel the onions, courgettes, garlic and carrots and slice everything. Wash the peppers and chillies, cut them in half, remove the seeds and then cut the halves into thin strips. Clean and wash the cauliflower and cut it into small florets. Bring the vinegar, sugar, salt, mustard seeds, cucumber spice and ground turmeric to boil together with 250 ml water in a pot and add the vegetables. Cook them one by one in the broth for about six minutes until soft. Lift the vegetables out of the pot with a skimmer and layer them in the previously sterilised jars. Bring the vinegar stock to boil again and pour hot over the vegetables, filling to just below the rim. Close the jars immediately and check that they are closed. The lid and especially the seal in the lid are also sterilised by turning the hot-filled jars upside down. When they cool down, a vacuum is created in the jar, which pulls the lid tightly against the jar. This protects the contents from external influences and keeps them for a long time.

Pickle vegetables with salt

Material:

Lemons, olives, carrots, chillies, cucumbers and small corn on the cob are particularly suitable. For this process, you will need per kilogram of vegetables: about 1 l of water 3 level tablespoons of coarse-grained salt (about 45 g) a dash of vinegar or lemon juice in a large preserving jar



Instructions:

Cut the vegetables into longer pieces. If you use lemons (organic), peel the fruit and cut the peel into pieces as well. Olives and small corn cobs can remain whole. Layer the vegetables in the jar. Bring vinegar or citric acid, water and salt to boil and leave to cool. Pour the broth over the vegetables until they are completely covered with liquid and close the jars. Check that the jars are properly sealed, then store them in a cool, dark place.

Important: With all methods of storage, success is highly dependent on hygiene! You should disinfect the jars and lids before putting them in. Boiling water, alcohol or a hot soda solution are suitable for this.

Tit drumlins

Material:

- Berries such as sea buckthorn, privet, hawthorn, barberry, but also sultanas.
- Seeds, kernels and nuts/ready-to-feed mixtures (linseed and hemp seeds as well as cereals, sunflower seeds, oat flakes)
- Coconut oil
- Natural yarn



Instructions:

Melt the fat carefully in a pot. Make sure that it does not boil, but just melts. Stir in the grain mixture.

Allow the mixture to cool slightly, stirring occasionally, until it becomes a soft dough. Form a ball with your hands. If you don't want to use a net or a tit dumpling holder, work a piece of natural yarn or a small stick into the ball so that you can hang it up later.

Optionally, roll the finished dumpling in the seed mixture so that a few crunchy treats can already be picked on the outside. Leave the dumplings to cool completely. Now you can place the tit dumpling on your balcony or windowsill and greet the birds outside your window every day.

Toothpaste powder

Material (one glass):

- 3 tbsp. calcium carbonate (whiting)
- small glass
- 1 tbsp. xylitol (also: xylitol or birch sugar)
- 1 tbsp. baking soda
- optional: up to 10 drops of essential oil, such as peppermint, eucalyptus, sage or lemongrass



Instructions:

Mix the dry ingredients, put the calcium carbonate, xylitol and baking soda in a flat screw-top jar, close and shake. If necessary, pulverise finely with a mortar or in a spice grinder if individual ingredients are still too coarse. You can make your plastic-free tooth powder from three natural ingredients - as effective as toothbrush tablets and ready to use in two minutes! If necessary, drop-in essential oil and shake again. The tooth powder with whiting is ready and can be used immediately. Put a small amount of powder on the wet toothbrush - either press the brush into the powder or portion it with a small spoon or similar - and brush as usual. The tooth powder foams little or not at all, but can be distributed well and quickly throughout the mouth.

Tightly sealed, the powder will keep for several months and can thus also be used as a stockpile.

Wax wraps

Ingredients:

- 2 scraps of fabric, each 20 x 20 cm, made of cotton, linen or other natural, absorbent textiles (no synthetic fibres)
- 2 heaped tablespoons of crushed beeswax (or vegan wax)
- optional 1 tsp coconut oil or other vegetable oil
- Oven and clean baking tray; Baking brush



The process is quite simple - cut out the

fabric, soak it in the liquid wax mixture, let it cool, and you're done! You don't even need to sew around the fabric, because the wax coating prevents the cloth from fraying.

- spread out the cloth on the baking tray. If you want to make several cloths at once, they can be layered on the baking tray, folding large cloths if necessary.
- place wax pastilles or crushed candle remnants on top.
- place the baking tray in the oven and heat to about 80°C until the wax has melted completely.
- Remove the tray from the oven and spread the liquid wax mixture over the fabric with a pastry brush. The fabric should be soaked through and through with wax. The still warm baking tray gives you some time to do this. If the wax cools down too quickly and does not saturate the fabric properly, you can heat the tray and the cloth again in the oven.
- Remove the cloths from the tray in several layers and leave them to cool on a clothes horse. Individual layers can also be left to cool on the tray.

If you want to add some vegetable oil to the beeswax, the procedure is slightly different: preheat the oven and baking tray without the cloth. Meanwhile, melt the wax and coconut oil in a water bath and mix thoroughly. Remove the hot baking tray from the oven and spread the pieces of fabric out on it. Pour the wax mixture onto the fabric and then spread it over the fabric as described above.

Wild-herbs recipes

Soups

Chickweed soup: The basis is potato soup. When it is ready, add one or two hands of chickweed and purée the soup.



Nettle soup: Boil the nettle leaves with a little water until they are soft. Then puree and deglaze with a roux. Season to taste and sprinkle with Parmesan cheese.

- 4 handfuls of nettle leaves
- 2 tsp flour
- 2 cups milk
- ½ clove of garlic
- nutmeg, salt
- 1 tbsp butter
- 1 tsp lemon juice
- 1 tsp Parmesan cheese

Salat

Dandelion buds: Collect the small flower buds in spring. Cook briefly in boiling water until soft. Drain. Steam in butter and season with salt, pepper, parsley and lemon juice. The buds can be pickled like capers in oil or vinegar. Boil them briefly in boiling water beforehand. Baked on toast with cheese and a slice of pineapple, they make a delicious variation on Toast Hawaii.

Wild Pesto

8 leaves of ribgrass, dandelion, parsley or basil

Wild-herbs recipes

Vegetable

Stinging nettle vegetables: Wash the plants; this destroys a lot of stinging hairs. Then put the vegetables into boiling water. After half a minute, when the leaves have collapsed, remove and rinse with cold water and drain well. Melt butter in a frying pan and sauté the onions. Add the blanched nettles and goutweed and possibly also a finely chopped clove of garlic for a few minutes. Finally, season with salt and lemon juice.



Desserts

Chamomile ice cream: A delicate and cold dessert for the summer is chamomile ice cream. For this, fresh chamomile blossoms, preferably in combination with fresh mallow blossoms, are first gently boiled in a water bath. The broth is mixed with honey and finally with yoghurt or cream. The mixture can be flavoured with lemon or lime juice before being placed in the icebox.

Dandelion root coffee: We can make a very healthy coffee substitute from the roots of the dandelion. We dig up the roots in early spring or late autumn. Wash them and cut them into small pieces. Lay them out to dry. When the roots are well dried, roast them in a pan or on a baking tray. Keep stirring well so that the roots are roasted evenly. Store in an airtight container. Before use, grind like coffee, 1 teaspoon of the powder is boiled briefly with 1 cup of water. Do not leave to brew for too long or the coffee will become bitter.

Wild-herbs recipes

Desserts

Dandelion honey:

Ingredients: 6 handfuls of fresh dandelion flowers, 1 untreated lemon, 1 untreated orange, 1 kg sugar, 2 litres of water



Put the blossoms in cold water with the citrus fruits cut into pieces, cover and leave to infuse for about 2 hours. Bring to the boil while stirring, boil for about 15 minutes, strain, and squeeze well. Stir in the sugar and boil until it becomes stringy. Pour into jars. For a jelly as a spread, you can also use jelling sugar and cook the mixture, not to honey consistency, but jelly consistency, i.e. for a shorter time.

Ground Ivy praline: Melt dark chocolate in a saucepan and brush the ground ivy leaves with it. Let it cool down in the fridge.

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