



Bioethical Education and Attitude Guidance for Living Environment

EDUCATIONAL MATERIALS



Erasmus+

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1. HOW TO USE EDUCATIONAL MATERIALS

In your hands you're holding the result of the second intellectual output of the project BEAGLE – Bioethical Education and Attitude Guidance for Living Environment. Project gathers partners from Croatia, Slovenia, Italy, and Greece, under the umbrella of Erasmus+ platform, with a common goal of promoting bioethical education, developing critical thinking, and overall changing of attitude towards better understanding of our environment.



In this document, you will find the division of educational materials according to age groups of children and young people, and according to the educational methods used in materials. All materials are described in detail "step by step" and created in a way to promote interactive discussion and critical thinking among young people on bioethical topics.



The materials have an indicated age group of children, duration and number of participants, and are designed as independent educational aids with specific methodological guidelines. **This does not mean that you have to strictly stick to what is written, but you can adapt the materials, activities and offered questions to the needs and possibilities of the group.**

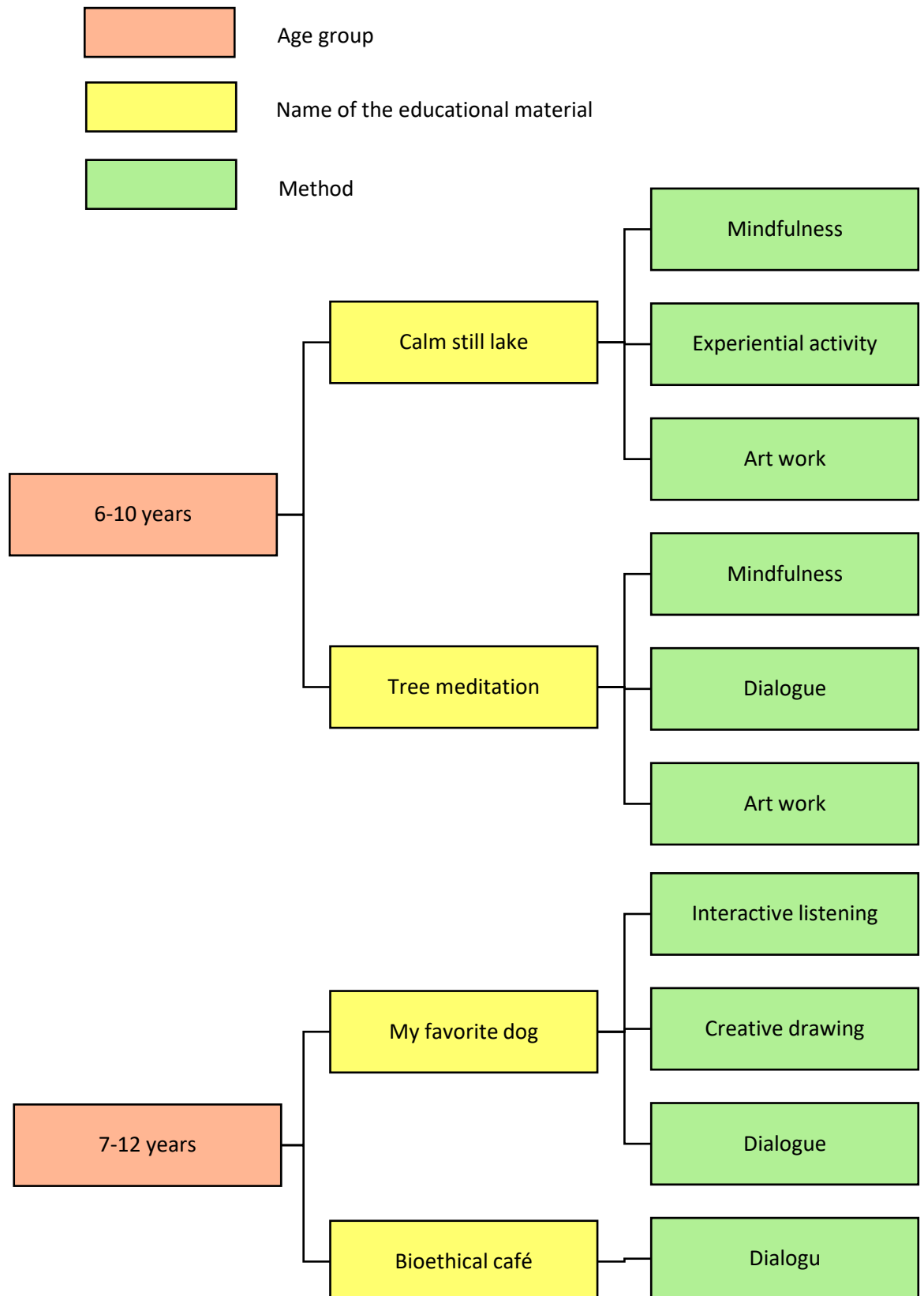


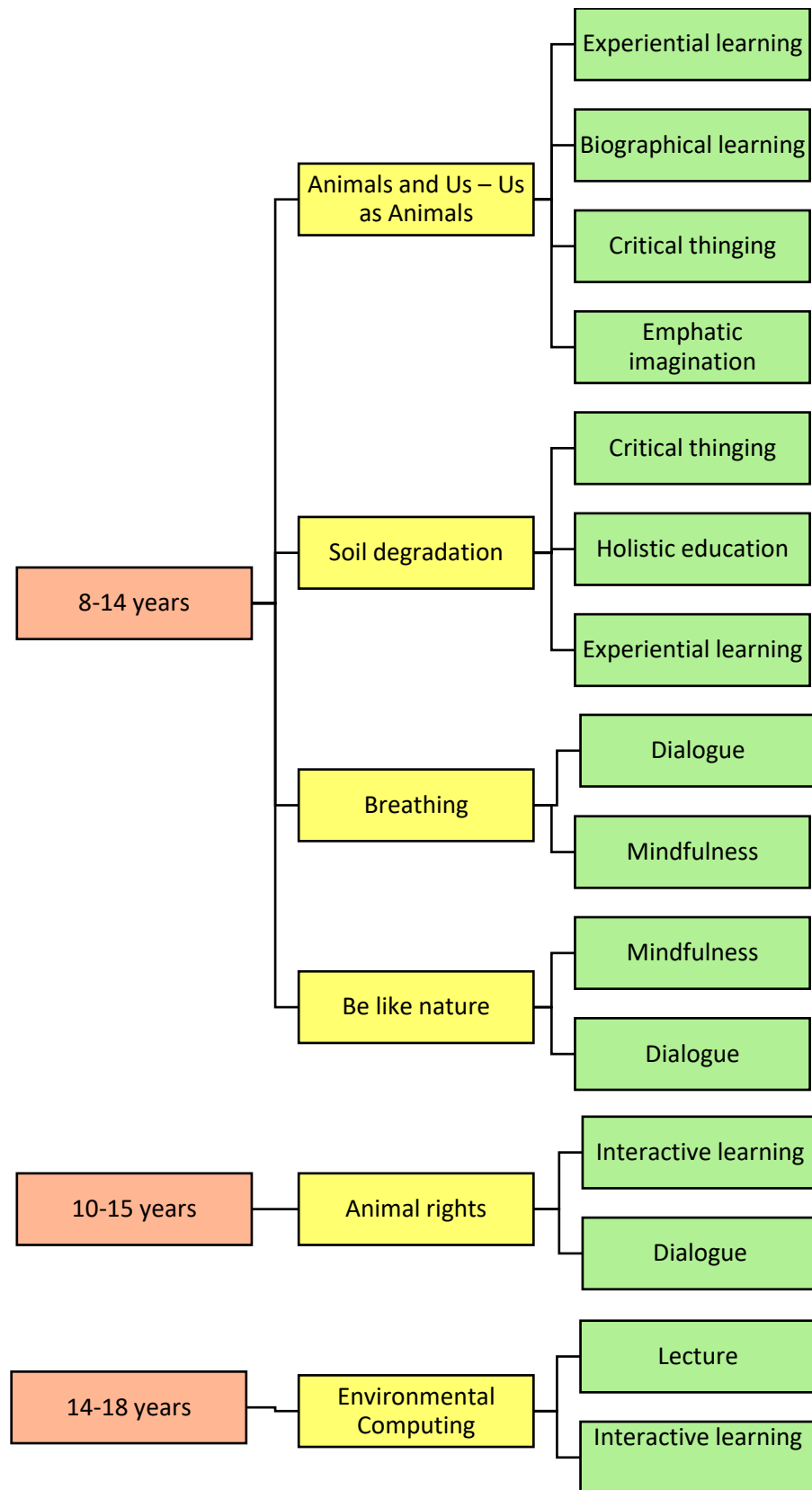
The materials can be used in different educational circumstances and contexts as well as in different national curricula because they deal with issues that have no boundaries, but are universal.



We hope that these educational materials will encourage you to be creative and give you a dimension in working and teaching bioethical topics in a simple, creative and fun way.

2. DIVISION OF EDUCATIONAL MATERIALS







Breathing

Environmental issue: “One of the major causes of air pollution is fire, one of the oldest forms — if not *the* oldest form — of air pollution around. Before humans even entered the scene, natural forest fires sparked by lightning caused air pollution. Today wildfires still present a massive pollution problem and more. In developing nations around the globe some three billion people use cook stoves that burn solid fuels, which create indoor air pollution that leads to millions of premature deaths each year. Burning fossil fuels is, of course, another large source of air pollution. Ever since the advent of the Industrial Age, the growth of manufacturing has vaulted air pollution into new realms. Nowadays, in cities like Beijing (as the 2008 Summer Games so starkly illustrated) and Linfen in China and New Delhi in India people suffer on a daily basis from air pollution that is equivalent to smoking two to three packs of cigarettes a day”ⁱ. **Is this inescapable? Does progress mean air pollution? How shall we find a balance between progress and human needs on the one hand, and air conservation on the other hand?**

Age range: 8 to 14 years

Time: 105-140 minutes

Group: 4-15 participants

Materials and tools: Different images of air and air pollution (they can be either printed or shown to the students through various media: computer, tablet, screens, etc.). Workshop can be held indoor or outdoor in a green area or park (if held outdoor, the seminar will be more effective because it will develop a deeper sense of unity between children and nature).

Educational methods: mindfulness + philosophical dialogue with children in the style of “Democratic cafe”^{ii iii}

Key learning points: The workshop aims to rise students’ consciousness about:

- importance of air for life on Earth
- conceptualization of air pollution
- ecological implications of human activities
- social and individual dimensions of air pollution/good practices: what shall I do to reduce air pollution? what shall society do to reduce air pollution?
- importance of biodiversity
- facilitating clarification of personal goals and values
- support a transition toward sustainability
- interconnection between all natural elements (human beings, non-human beings, environment itself)
- rise empathy and compassionate attitudes and conducts towards the non-human world
- the workshop is also intended to develop philosophical and critical thinking in children.

Keywords:

- air pollution
- human activities
- acid rains - climate change
- breathing
- fossil fuels, renewable energies
- health
- sustainability
- interconnection – empathy – compassion – caring – non-dualistic consciousness

Notes: Be sure that number of participants, time and level of discussion are adapted to the group age.



Workshop step by step - How to do it?

This workshop is composed of 3 parts:

1. a mindfulness practice
2. proposition of an environmental ethical issue + reflection upon the non-human world + “Democratic cafe” with children
3. conclusion

NOTES:

- Workshop can be held indoor or outdoor in a green area or park (if held outdoor, the seminar will be more effective because it will develop a deeper sense of unity between children and nature).
- Depending on the time available, the workshop can be held in one session in the same day, or in two sessions split in two different days. In the latter case, the mindfulness practice must be repeated at the beginning of each session.

Part 1 – Mindfulness practice - “Mindfulness of breathing”

Activity 1: Students are invited, through a mindfulness practice, to prepare their senses, body and mind to get in contact with the natural world ^{iv}.

Depending on where the workshop is held, educator invites children to take a seat on a chair, a rock, a trunk or tree branch, or on a bench. They shall seat in a stable, comfortable, balanced posture. It is preferable to sit for meditation without leaning onto the back of the chair.

Educator will invite children to maintain their chin slightly tucked to keep the cervical spine aligned, and to sit in a such a way that their spine follows natural curvature: upright, yet natural. At the beginning of the practice, arms are parallel to the torso, palms fall naturally on the thighs.

Then educator invites children into the practice:

Close your eyes. If you feel more comfortable to have your eyes open, gently divert your gaze to the ground.

Take few minutes to feel the touch of everything: the floor beneath, the clothes on your body, your hair moving and gentle breeze passing by.

(pause)

Relax your body and start breathing.

(pause)

Breathe slowly and deeply

(pause)

Now focus on your breath.

(pause)

Notice if it is fast or slow.

(pause)



Notice if you are holding your breath.

(pause)

Play with the rhythm of your breath and find a pace that feels comfortable and soothing to you. Try not to hold your breath.

(pause)

Feel the air going into your body and then leaving your body.

(pause)

Feel the air traveling through your nose as it goes in and then comes out again.

(pause)

Whatever your breath is doing just watch and notice how it feels.

(pause)

Feel the movement of your body as the air goes into your lungs and then out again.

(pause)

Just feel yourself breathing.

(pause)

If your mind wanders off to other thoughts just bring it back to focus once again on your breath.

(pause)

You may find it helpful to say in your mind “breath – ing – in” as you breathe in and to say in your mind “breath – ing – out” as you breathe out.

(pause)

Breathing in, breathing out in a rhythm and pace that is comfortable for you.

(pause)

Continue to focus on your breathing for a few more moments, feeling your breath filling your body as you breathe in and gently leaving your body as you breathe out.

(pause)

When you are ready gently open your eyes, look around, thank yourself for the practice.

Total time for Activity 1: 10/20 minutes

Tips:

1. Educator: use your intuition to figure out how long to spend on each part. The whole exercise can last between 10 and 20 minutes depending on your students. Do not rush, allow students enough time for their bodies to accommodate, for perceiving their breath and to visualize the images you are evoking.
2. Educator will talk with a very natural, smooth, calm, soothing voice; the tone will be gentle and inviting.
3. Before teaching this, it is good if you have time to practice the exercise yourself.
4. “Since mindfulness is not a religious or spiritual practice, when teaching a mindfulness session it’s important to avoid using terms or materials or developing rituals that might have religious connotations. None of these are relevant to the practice of mindfulness and may present an obstacle to students from certain



groups. Because mindfulness is an evidence based attention training and awareness technique that is not intended to explore religious beliefs or attitudes, it neither conflicts nor overlaps with any spiritual practice or religion”^v.

Part 2 – Educator proposes a specific environmental ethical issue - Reflection upon the non-human world – Democratic cafe (Socrates café)^{vi}

Activity 2.1 – Rules - Students are invited to sit in a circle, taking the seat they prefer next to the educator (if the workshop is held outside, students can sit on a rock, on the grass, on a fallen branch, etc...). Then educator will explain some “etiquette” rules children must respect during the seminar (Pihlgren, 2009)^{vii} :

- “dialogue: educator explains to students they will be invited to answer some questions and that they will hold a conversation among them; they will act as a group, every individual helps everyone in the group to come to some understanding; everyone “wins” together (dialogue is presented as opposed to debate, where the meaning is to expose different points of views in order to have one participant or one idea “win”)
- educator explain students they must listen attentively to what others say
- explains that there are many possible answers to questions presented: there is not a correct or a wrong answer
- educator invites students to be open and prepared to reconsider and maybe change their opinion”.

Students will be also invited to reach an open and inquiring disposition through:^{viii ix}

- “docility: one is prepared to listen to and be affected by what other people have to say
- orderliness: one submits oneself to some simple rules of conduct, like “build upon the comments of other participants”, etc.
- justification: participants are trying to support their points (interpretations, arguments) by referring to evidence from the text or their own experience
- concentration: children help keeping a focus by identifying and sustaining a genuine issue
- courage: one is ready to formulate “brave guesses” or interpretation possibilities that bring new perspectives into the discussion
- concern: each pupil is regarded as sufficiently interesting to be asked and listened to
- generosity: everyone will be allowed time and space to formulate and reformulate an idea without being interrupted
- courtesy: one is prepared to temporarily withhold one’s point of view in order to help someone else to articulate his or her idea
- humility: one is prepared to withhold one’s own point altogether because the other person or the mainstream of the argument is more important”.

Total time for Activity 2.1: 10 minutes to present the rules by the educator



Activity 2.2 – Introduction. Educator will propose an environmental ethical issue connected with air. In the case of the present workshop, educator will propose the issue of **balancing human’s needs and the necessity of conservation of the atmosphere**. Educator shall propose students the issue in terms such as: “Human beings need a lot of things for their survival, well-being, comfort, leisure, education, health, transport, and for all their various needs. In many cases, human activities badly affect the air, causing a lot of damages to themselves and to the Earth. **What kind of balance shall we find between humans’ needs and the conservation of the atmosphere? What kind of attitude shall we have towards environment, and in particular towards air, in order to maintain the actual level of progress and to respect all forms of life on earth?”**.

Total time for Activity 2.2: 5 minutes to introduce the issue by the educator

Activity 2.3 – Educator will show students several pictures connected to air in general (not connected with pollution, as this topic will be discussed later). It is suggested to choose pictures showing different aspects of air ^x. Images can be either printed (to save paper, print only one copy of each image and make them circulate among students) or shown on a computer screen/ tablet, or other media.

Educator will ask students questions about what they know about air. Educator can pick up questions from any of the following groups of issues or might pick up from questions within the same group, bearing in mind that there must be a logical connection between the questions submitted to students and that a question must lead to another (e.g.):

AIR – GASES – OXYGEN

- what is air useful for? ^{xi}
  - ✓ human/animal/plant breathing
  - ✓ air is a protective cushion. The air in our atmosphere acts as insulation, keeping the Earth from getting too cold or too hot
  - ✓ ozone, a type of gas in the air, protects us from too much sunlight
  - ✓ air in the atmosphere can also protect us from meteoroids. When meteoroids contact our atmosphere, they rub against the air and oftentimes are burned into small pieces before reaching Earth ^{xii}
  - ✓ did you know that living organisms can also be found hanging out in the air? These tiny microbial organisms are called bioaerosols. Although these microbes can’t fly, they can travel long distances through the air—via wind, rain, or even a sneeze!
-
- what is air made of?
- air is a mixture of gases:

- 
- ✓ oxygen makes up about 21% of air
  - ✓ about 78% of the air is made up of a gas called nitrogen
  - ✓ there are also tiny amounts of other gases like argon, carbon dioxide and methane^{xiii}
  - ✓ air also holds water. When it's a hot summer day, you've probably heard the word "humid." what does that mean, exactly? Relative humidity is the amount of water that the air can hold before it rains. Humidity is usually measured in percentages, so the highest level of relative humidity—right before it rains—is 100 per cent^{xiv}
  - ✓ air also holds particulate matter

  - who needs air? who breath?
  - ✓ human beings
  - ✓ plants and animal life on earth
  - ✓ animals and plants in the water: air pockets in water help living things survive in water. For example, fishes absorb oxygen from water with their gills^{xv}
  - ✓ air is also important for living organisms in the soil to survive and function. Without soil aeration, decomposers cannot work on organic matter to decompose them, as soil moisture alone is not enough for decomposition
  - ✓ moving air (wind) is also important for some plants to pollinate^{xvi}

  - where does most of the world's oxygen come from?
  - ✓ "most of the oxygen comes from tiny ocean plants called phytoplankton, that live near the water's surface and drift with the currents. Like all plants, they photosynthesize – that is, they use sunlight and carbon dioxide to make food. A by-product of photosynthesis is oxygen. Scientists believe that phytoplankton contribute between 50 to 85 per cent of the oxygen in Earth's atmosphere. They aren't sure because it's a tough thing to calculate. In the lab, scientists can determine how much oxygen is produced by a single phytoplankton cell. The hard part is figuring out the total number of these microscopic plants throughout Earth's oceans. Phytoplankton wax and wane with the seasons. Phytoplankton blooms happen in spring when there's more available light and nutrients"^{xvii}
  - ✓ terrestrial plants contribute to another 50% of the total amount of oxygen^{xviii}

  - why is the sky blue?

PHOTOSYNTHESIS

- what gas is important to green plants for photosynthesis to happen?

Carbon dioxide

- do you know what photosynthesis is and do you know how it works?

Plants use Carbon Dioxide (together with sunlight and water) to produce energy and give out oxygen as a by-product. Plants absorb Carbon Dioxide from the air and discharge oxygen through very tiny pores in the leaves^{xix}



BREATHING

- how does human breathing work?

Breathing is part of a process called respiration. During respiration, a living thing takes in oxygen from the air and gives out carbon dioxide ^{xx}

- what gas in the air is important for human survival?

It is vital that living things respire to get the oxygen for living cells to function. Without air, there is no life ^{xxi}

- what gas (which is a waste product) is exhaled from the body when breathing?

Carbon dioxide is exhaled from the body

- what is respiratory system?

It is the system of organs in the body which is responsible for taking in oxygen and giving out carbon dioxide

- which are the organs involved in human respiration?

nose, windpipe, lungs, rib cage. The ribs also move when we breathe in and out. You can feel it working by doing the following exercise: put one hand on your chest and the other on the upper part of your stomach. Now, take a deep breath. You will feel your chest and your stomach get bigger as the air goes into your lungs. Now exhale: the rib cage also moves as you inhale and exhale. Place a finger under your nose: you'll feel the air going in and out your nose while chest and stomach move up and down ^{xxii}

- why is important to exhale?

The exhale is just as important as the inhale. Only when you exhale you can breathe out toxins, like carbon dioxide, and allow fresh oxygen to flood back in ^{xxiii}

- how much air do we breathe every day?

It is estimated that you breathe 20,000 litres of air each day. This means the more polluted the air is, the more dangerous chemicals we breathe into our lungs ^{xxiv}

Students take turns to propose their answers or to rise related questions.

Total time for Activity 2.3: 30 minutes according to age and number of participants

Tips:

- The issue and its related implications will be formulated in a form adequate to students' age.
- These are just examples of topics. Teachers shall choose topics at their convenience and in accordance with pupils' curriculum.



Activity 2.4 – Educator will show students several pictures exemplifying the issue of air pollution. It is suggested to choose pictures showing different places, situations, sources of pollution, etc. ^{xxv}

Educator will stimulate discussion among students in order to rise their consciousness about air pollution, its causes, its consequences; the interconnection between any natural element (human beings, non-human beings, environment itself); the importance of nature preservation; human beings' needs and rights for food, housing, studying, moving, health, etc.; how to balance humans' needs and nature preservation. To rise their consciousness and to stimulate dialogue, educator shall pose questions such as:

- what does it mean that air is polluted?

Air pollution refers to the contamination of the air, irrespective of indoors or outside. A physical, biological or chemical alteration to the air in the atmosphere can be termed as pollution. It occurs when any harmful gases, dust, smoke enters into the atmosphere and makes it difficult for plants, animals, and humans to survive as the air becomes dirty ^{xxvi}.

Air pollution is measured with the Air Quality Index, or AQI. The lower the AQI, the cleaner the air is. However, if you are outside when the AQI is over 100, it's about the same as breathing in exhaust from a car all day! If the AQI is higher than 100 you shouldn't spend too much time outside. ^{xxvii}

- how does air pollution affect human beings/me? ^{xxviii}

It can be harmful to us if there are high levels of pollution in the air that we are breathing:

- ✓ air pollution can irritate our eyes, throat and lungs
- ✓ people who already have breathing problems - like asthma or heart or lung diseases - are likely to be very sensitive to air pollution
- ✓ other people who might be affected by air pollution are the very young or very old
- ✓ If you are sensitive to air pollution you might start to cough or find it difficult or painful to breathe when air pollution is high, especially if you are running around outside or playing sports.
- ✓ Some people might not notice any effects at all
- ✓ air pollution isn't only harmful to humans. Some pollutants like nitrogen dioxide and sulphur dioxide contribute to acid rain, which can damage crops, forests and materials, or harm animals and fish ^{xxix}

- shall you name some other consequence of air pollution?

- ✓ climate change ^{xxx}

The 'climate' is the average pattern of weather in a region that has been recorded over many years. The climate is not the same as the weather, which is what we experience every day - for example sunshine, rain, wind, snow, fog.

The climate of the Earth is always changing. The term 'climate change' is generally used



when we refer to changes in the climate that we have seen since the start of the last century.

In the past the climate has changed as a result of natural causes. For example, when a volcano erupts, large amounts of dust are ejected high into the atmosphere and that reduces the amount of sunshine that can reach the earth's surface. Scientists now believe that changes they have seen over recent years are mainly because of human activity, rather than due to natural changes to the atmosphere

✓ acid rains ^{xxxix}

Acid rain is rain that is unusually acidic and corrosive in nature. It may be defined as "rain water having pH less than 5.6".

Acid rain is caused by acids mixing with air: gaseous compounds of ammonium, carbon, nitrogen, and sulphur are released into the atmosphere; then the wind carries the gases high into the sky. There the compounds react with the water in the atmosphere and acids are made.

There are various natural causes of acid rains, such as gases from volcanoes and lightning.

However, it is thought that air pollution by humans causes most acid rain. People started producing more acidic gases when they started building factories and power stations. These buildings as well as houses and vehicles burn coal or oil that have sulphur in them. This releases gases into the air that produce acid rain

Due to the corrosive nature of the acids it damages both non-living things as well as living organisms: acid rain can have harmful effects on:

- plants, forests, animals, insects, humans
- freshwater and soil
- causes damage to buildings and having impacts on human health

✓ loss of biodiversity

✓ depletion of ozone layer

Ozone exists in the Earth's stratosphere and is responsible for protecting humans from harmful ultraviolet (UV) rays. Earth's ozone layer is depleting due to the presence of chlorofluorocarbons, hydrochlorofluorocarbons in the atmosphere. As the ozone layer will go thin, it will emit harmful rays back on earth and can cause skin and eye related problems. UV rays also have the capability to affect crops ^{xxxix}

- what are the causes of air pollution?

- ✓ burning of fossil fuels to generate electricity
- ✓ heating
- ✓ vehicles and heavy equipment
- ✓ airplanes
- ✓ manufacturing, oil refineries and other industries

Manufacturing industries release a large amount of carbon monoxide, hydrocarbons, organic compounds, and chemicals into the air thereby depleting the quality of air. Manufacturing industries can be found at every corner of the earth and there is no area that has not been affected by it. Petroleum refineries also release hydrocarbons and



various other chemicals that pollute the air and also cause land pollution ^{xxxiii}

- ✓ agricultural/farming activities

Ammonia is a very common by-product from agriculture-related activities and is one of the most hazardous gases in the atmosphere. Use of insecticides, pesticides, and fertilizers in agricultural activities has grown quite a lot. They emit harmful chemicals into the air and can also cause water pollution ^{xxxiv}

- ✓ intensive animal breeding (emissions from livestock)

- ✓ deforestation

- ✓ incineration of waste

- ✓ mining operations

Mining is a process wherein minerals below the earth are extracted using large equipment. During the process dust and chemicals are released in the air causing massive air pollution. This is one of the reasons which is responsible for the deteriorating health conditions of workers and nearby residents ^{xxxv}

- ✓ particles from brakes and tyres: some particles from brakes and tyres are small enough to be inhaled

- ✓ asphalt particles: petroleum-based asphalt is a high volatile organic compound substance. As the product is converted to asphalt, significant quantities of harmful gases are released into the atmosphere ^{xxxvi}

- ✓ eruptions from volcanoes

- ✓ fire plumes

- is carbon dioxide good or bad?

When humans and animals breathe, we give off an odorless gas called carbon dioxide, or CO₂. Plants use this gas, along with sunlight, to make food and oxygen. This process is called photosynthesis. However, large amounts of CO₂ are produced when cars and power plants burn coal, oil, and gasoline. This is bad because CO₂ is the most important contributor to human-caused global warming. ^{xxxvii}

Educator will also suggest questions such as:

- do you have heating in your flat? which kind of heating? what would it be if you hadn't heating?

- do you go to school by car? how long does it take to go from your house to school?

- have you ever taken a plane? where to? would it be possible to go to this place without a plane?

- do you remember if you've heard your parents/friends saying that on a certain occasion cars couldn't circulate due to high levels of air pollution?

Students take turns to propose their answers or to rise related questions.

Total time for Activity 2.4: 30 minutes according to age and number of participants

Tips:

- The issue and its related implications will be formulated in a form adequate to students' age.
- These are just examples. Teachers shall choose topics/issues at their convenience and in accordance with pupils' curriculum.

Activity 2.5 – At last, educator will stimulate children to discuss about the following points (possible answers):

- 1. Is there any natural element that can contribute to make air clean?
  - ✓ rain
  - ✓ snow
  - ✓ wind
- 2. ask children who is in charge of taking care of the air:
  - ✓ themselves?
  - ✓ their parents?
  - ✓ their friends?
  - ✓ their teachers?
  - ✓ the Major of their city?
  - ✓ the Government?
  - ✓ the President ?
  - ✓ nobody: air takes care of itself
- 3. What can I as a person do to contribute to lower levels of air pollution? (Ethical values)
  - ✓ reduce heating in your flat
  - ✓ go to school by bicycle/on foot. You could walk or cycle to school with friends, which won't create any pollution at all and it benefits your health. Walking or cycling is better than travelling by public transport, and much better than travelling by car ^{xxxviii}
  - ✓ go to school by bus/train
  - ✓ save electricity: don't leave your electronic devices such as TV's, computers, DVD's on stand-by mode. Switch them off completely and you will save about 10% more electricity. Less electricity consumed means less power produced and fewer pollutants released into the air from burning of fossil fuels. It will also save money in the long run ^{xxxix}
  - ✓ use fossil fuels efficiently
  - ✓ use fertilisers efficiently
  - ✓ plant a tree
  - ✓ visit a forest or woods
  - ✓ reduce the risk of wildfires

- 4. What can we as a society do to contribute to lower levels of air pollution? (Democratic values)

- ✓ promote public transport: It is more environmentally friendly if we use buses or trains whenever we can as this will reduce the number of cars on the road generating pollution. Every little bit makes a difference – and we all have a role to play in cleaning up our air ^{xi}
- ✓ promote car sharing
- ✓ promote car-free-days in our cities
- ✓ promote sustainable heating via renewable energy: 'renewable' energy is a way of reducing emissions of air pollutants and greenhouse gases. Examples include solar power, wind turbines and hydroelectricity ^{xli}
- ✓ reduce the risk of fires

- 5. How to live in harmony with the nature? (Environmental values)

- ✓ use train when possible instead of airplanes
- ✓ pass national and international laws passing regulations on the reduction of air pollutants
- ✓ promote sustainable forestry. Sustainable forestry balances the needs of the environment, wildlife, and forest communities, supporting decent incomes while conserving our forests for future generations ^{xlii}
- ✓ consume less energy
- ✓ reduce waste

Students take turns to propose their answers.

Total time for Activity 2.5: 30 minutes according to age and number of participants

Tips:

- The issue and its related implications will be formulated in a form adequate to students' age.
- Educator shall adapt the level of discussion to the group age. In case children in the group have different ages, educator shall involve the youngest children into the most simple questions and shall ask the eldest children to develop the answers or topics proposed by the youngest.
- Educator acts as both facilitator and co-inquirer.

Part 3 – Conclusion: express gratitude and describe your feelings

Activity 3.1 - After discussion ends, educator invites children to take a seat in a comfortable position, to close their eyes, and breath slowly and mindfully for 5 times.

Then children are invited to thank respectfully the air, saying out loud to the air and to the rest of the children what they are grateful for (e.g.: I am grateful because I can breath clean air; I am grateful because my dog can breath clean air; I am grateful for



the air where birds fly; I am grateful to trees because they produce oxygen; I am grateful for the the wind which brings fresh air; .....).

At last, educator and students have a brief exchange about what they just experienced together. Discussion topics might include:

- Does anyone feel more like part of the Earth?
- Which one of the elements did the students connect with the best?
- What did this feel like?

Students take turns to propose their answers.

Total time for Activity 3.1: 10/15 minutes

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ⁱ <https://theweek.com/articles/586863/brief-history-air-pollution>

ⁱⁱ “Democracy Cafe’s quest is to create a more perfect union by bridging human divides, so we quit looking at others who see things differently than we do as “the other,” and discover uncommon common ground. This in turn helps evolve a shared language that sparks greater humanism and veers us away from barbarism. (...)The many thousands around the globe who regularly take part in Democracy Cafe-spearheaded initiatives — who ‘democratize’ with us — are more thoughtful, connected, reasonable and understanding. Not because they have to be in order to take part, but because that’s a key outcome of exploring and inquiring together in an egalitarian way into timely and timeless matters of concern to one and all. (...) Participants (...) are proof positive that open and opening societies hinge on the considerate, involved and impassioned participation of an enlightened citizenry in which everyone matters and counts, and that the most topflight ideas tend to come from the bottom up. (...)at a time of great polarization, inclusive participatory societies thrive on face to face give-and-takes — on ‘democratizing’ — in which everyone matters and counts and has a genuine chance of being heeded and heard, in which equal consideration is given to a bracing variety of perspectives, and in which every interlocutor has a chance to reveal her unique story, expertise and stores of wisdom. (...) As participants come to recognize and appreciate that we all, at every age and state and station, have unique expertise, talents, stores of wisdom, they do away with those pernicious forms of pretentiousness and elitism that creates stilted hierarchies.

They come to more keenly embrace and entertain differing stances, perspectives and approaches, without anyone or one approach having a monopoly on ‘the truth.’”

Source: <https://www.socratescafe.com/>

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- iii For more information about Democracy Cafe, see also:
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- v Smiling Mind. (2018). *Evidence based guidelines for mindfulness in schools - A guide for teachers and school leaders*. Australia.
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- vi For information about how a Socratic Café works and about its method, see:
<https://www.katherinecadwell.com/what-is-a-socrates-caf>
- vii Acknowledges: PIHLGREN Ann S., *A short introduction and handout to the workshop: Socratic Seminar in the Tradition of Early Swedish Popular Education, Folkbildning*. 2009. Available at:
<http://www.ep.liu.se/ecp/021/vol2/015/ecp2107v2015.pdf>
- viii PIHLGREN Ann S., *ibid*.
- ix “When establishing dialogue, perhaps the hardest and most demanding task is to reach an open and inquiring disposition, embracing all participants. The participants have to nurture a culture, where some principles and values regulate the intercourse. (...) Communicative or dialogical virtues lead to a prosperous dialogue. (...) The virtues are reflecting the twofold features of the Socratic seminar: at the same time an intellectual process, promoting critical inquiry, and a communicative process, promoting a prosperous dialogue culture where participants will feel safe to take intellectual risks” (PIHLGREN Ann S., *ibid*.)
- x Examples of images:
- CLOUDS:** <https://unsplash.com/photos/1h2Pg97SXfA>
- CLOUDS 2:** <https://unsplash.com/photos/BX0Mm9fazTl>
- HOT AIR BALLONS:** <https://unsplash.com/photos/zdIU7W5G5Ts>
- FLYING BRID:** <https://unsplash.com/photos/OCfd22KnWPg>
- SAILING BOAT ON THE SEA:** <https://www.dreamstime.com/stock-photography-sailing-boat-image1047212#tab1>
- KID HOLDING BREATH:** <https://www.masterfile.com/image/en/641-07363632/portrait-of-little-boy-blowing-his-cheeks-studio-shot>
- LITTLE GIRL BREATHING IN A PARK:** <https://catechistsjourney.loyolapress.com/2018/05/take-a-deep-breath-in-may/>
- PHOTOSYNTHESIS/PLANTS:** <https://www.shutterstock.com/image-photo/science-ecology-closeup-green-leaf-texture-548462053?src=wGbeS53MMFcHZNvnmzTOWw-1-6>
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- xi <https://climatekids.nasa.gov/10-things-air/>
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- xiii http://microbemagic.ucc.ie/explore_body/air_composition.html

- xiv <https://climatekids.nasa.gov/10-things-air/>
- xv <http://eschooltoday.com/science/needs-of-living-organisms/living-things-need-air-to-survive.html>
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- xvii <https://earthsky.org/earth/how-much-do-oceans-add-to-worlds-oxygen>
- xviii <https://www.wired.com/2014/12/your-atomic-self-how-your-breath-connects-you-to-universe/>
- xix <http://eschooltoday.com/science/needs-of-living-organisms/living-things-need-air-to-survive.html>
- xx <https://climatekids.nasa.gov/10-things-air/>
- xxi <http://eschooltoday.com/science/needs-of-living-organisms/living-things-need-air-to-survive.html>
- xxii <https://slideplayer.com/slide/8761834/>
- xxiii <https://www.nowtolove.co.nz/health/body/why-breathing-properly-is-so-important-32690>
- xxiv <http://cleartheair.scottishairquality.scot/about/impacts>
- xxv Examples of images:
- INDUSTRIAL CHIMNEYS:** <https://www.pexels.com/photo/air-air-pollution-chimney-clouds-459728/>
- INDUSTRIAL CHIMNEYS (2):** <https://www.pexels.com/photo/air-air-pollution-climate-change-dawn-221012/>
- CAR EMISSIONS:**
- https://www.shutterstock.com/image-photo/air-pollution-vehicle-exhaust-pipe-on-523980847?irgwc=1&utm_medium=Affiliate&utm_campaign=Hans%20Braxmeier%20und%20Simon%20Steinberger%20GbR&utm_source=44814&utm_term=https%3A%2F%2Fpixabay.com%2Ffit%2Fphotos%2Finquinamento-inquinamento-atmosferico-4001554%2F
- DEFORESTATION:**
- <https://www.canva.com/photos/MADarCYTwkl-deforestation/>
- CHILD WITH ANTI SMOG MASK AND TEDDY BEAR:** https://www.shutterstock.com/image-photo/child-protective-mask-hugging-teddy-bear-1100732882?irgwc=1&utm_medium=Affiliate&utm_campaign=Hans%20Braxmeier%20und%20Simon%20Steinberger%20GbR&utm_source=44814&utm_term=https%3A%2F%2Fpixabay.com%2Ffit%2Fphotos%2Finquinamento-inquinamento-atmosferico-4001554%2F
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- xxix <http://children.scottishairquality.scot/affect-me>
- xxx <http://children.scottishairquality.scot/climate-change>
- xxxi https://simple.m.wikipedia.org/wiki/Acid_rain
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- xxxvi <https://www.aexcelcorp.com/blog/eco-friendly-traffic-paint/3-ways-asphalt-and-concrete-are-affecting-the-planet>
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- xxxix Source: <http://cleartheair.scottishairquality.scot/making-a-difference/index.php>
- xl Source: <http://cleartheair.scottishairquality.scot/making-a-difference/index.php>
- xli Source: <http://cleartheair.scottishairquality.scot/making-a-difference/index.php>
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