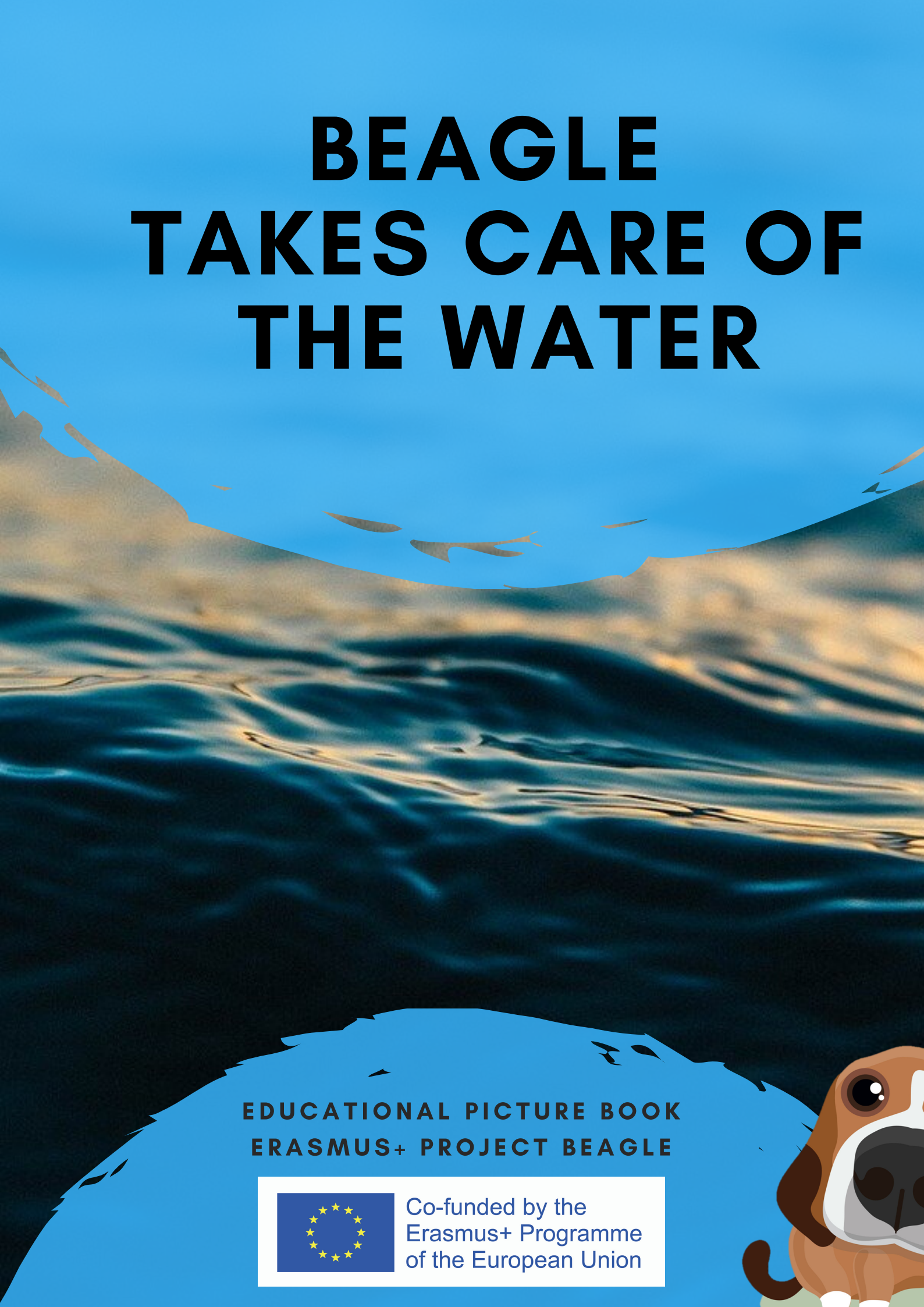
BEAGLE TAKES CARE OF THE WATER



EDUCATIONAL PICTURE BOOK

ERASMUS+ PROJECT BEAGLE

Co-funded by the Erasmus+ Programme of the European Union

Page intentionally left blank

BEAGLE educational picture book

Beagle takes care of the water

Authors

Maddalena Nicoletti & Pier Giacomo Sola

Art

©Pixabay/Pexels/UlHere
©Canva

Disclaimer

This project has been funded with support from the European Commission. This publication reflects the views only of the author(s), and the Commission cannot be held responsible for any use which may be made of the information contained therein.

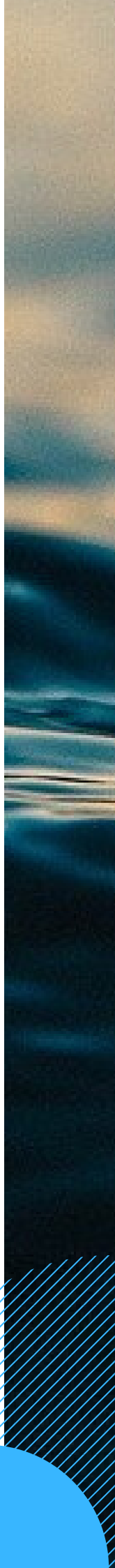
Co-funded by the Erasmus+ Programme of the European Union

AGENCY FOR MOBILITY AND EU PROGRAMMES

beagle
Bioethical Education and Attitude Guidance for Living Environment

Contents

- Foreword_____3
- Additional remark_____4
- Fun facts to start_____6
- Main story_____7
- Methodological chapter_____19



Foreword

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.

First thing one might notice opening this picture book, is that there are very little pictures! Our intention was to create a unique tool for the classroom – one than can serve both students and teachers alike. Thus, this book is not only a didactic tool with educational stories and accompanying questions for discussion, it's also a creative one! It's a canvas on which students can express themselves freely, and engage directly into creating a story.

That being said, there are few distinctive parts of this book, which require further explaining. **On the left pages**, you will find main story of the book with information relevant to the theme. Each short chapter is accompanied by series of bioethical questions, problems or tasks that can be used to lead a discussion. Questions can be used together in one class, or separately, in few sessions, depending on preferences and resources of the teacher.

As the left pages are dedicated to reading and listening, **right pages** are designed for verbal expression, critical thinking, collective discussion but also, more importantly, for artistic expression and creative tasks. Right pages are there to remind the students that they are important part of our environmental story! It is their task, if they wish, to accompany the main story with the illustrations, or complete the creative assignments of their choosing.

At the end of the book, in separate **methodological chapter**, teachers can find detailed explanations of tools and methods that may be helpful for using this book, in the class or in general.

Additional remark

Educational picture book "Beagle takes care of the water" is designed as an interactive multipurpose didactical tool. The book is published online, easily downloadable in PDF formatting, and free for use.

Keeping in mind the environmental message we try to convey, it is worth mentioning that the complete book **does not have to be printed in order to be adequately used in the classroom!**

Stories and questions, for example, can be implemented with the help of the computer or projector. Creative tasks and assignments on the right pages, which were constructed to follow the main story, and strengthen the message behind it, can mainly be drawn, painted, or in other creative ways performed **on a plain scratch paper.**

For more info about the BEAGLE project and other open educational resources, visit:

www.beagleproject.eu

Page intentionally left blank

Fun facts to start...
...did you know?

...water covers three-quarters of the Earth's surface?

...we have a limited amount of usable fresh water?

...because over 97% of the Earth's water is found in the oceans as salt water?

...and 2% of the Earth's water is stored as fresh water in glaciers, ice caps, and snowy mountain ranges?

... so only 1% of the Earth's water is available to us, for our daily water supply need?

...our fresh water supplies are stored either in the soil (aquifers) or bedrock fractures beneath the ground (ground water) or in lakes, rivers, and streams on the Earth's surface (surface water)?

...the three largest oceans on Earth are the Pacific Ocean (largest), the Atlantic Ocean (second largest) and the Indian Ocean (third largest)?

...the water cycle involves water evaporating (turning into a gas), rising to the sky, cooling and condensing into tiny drops of water or ice crystals that we see as clouds, falling back to Earth as rain, snow or hail before evaporating again and continuing the cycle?

...evaporation approximately equals precipitation?

...when a baby is born, 80% of his/her body is made of water?

...and the longer we live, the drier we get?

... the weight a person loses directly after intense

physical activity is weight from water, not fat?

...if hot and cold bowls are left in identical sub-zero temperatures, the warm water turns to ice first?

...water boils more quickly in the mountains than at sea level?

What are the uses for water?
What do we use water for in our everyday lives?

We use fresh water for a variety of purposes.

Agricultural uses represent the largest consumer of fresh water, about 42%.

Approximately 39% of our fresh water is used for the production of electricity.

11% is used in urban and rural homes, offices, and hotels. And the remaining 8% is used in manufacturing and mining activities.

Questions for class:

In your everyday life, you use water for drinking, preparing your food, for washing yourself/your dresses and toys, for drawing a picture using watercolors, etc.
Can you think of other ways water is used by human beings every day?

There are many more uses than you would imagine! Write them below:

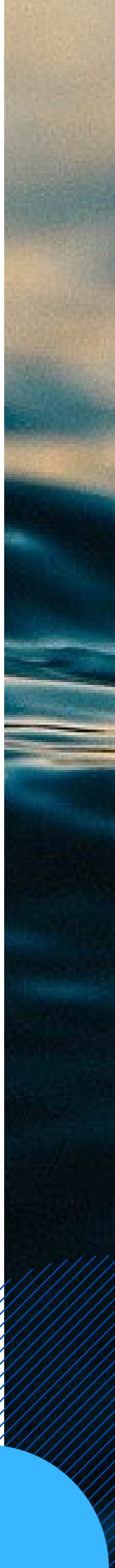
Household water uses: having a shower, watering plants on balcony, _____
_____

Communities: watering public flowerbeds,_____
_____

Farming: watering crops,_____
_____

Recreation: swimming pools,_____
_____

Industry: production of beverages,_____
_____



How do human beings pollute water?

A lot of human activities can be dangerous for water.

Water can get polluted by passing through polluted soil, such as a mine, or a land with toxic or radioactive materials.

You can prevent pollution of water at home in several ways:

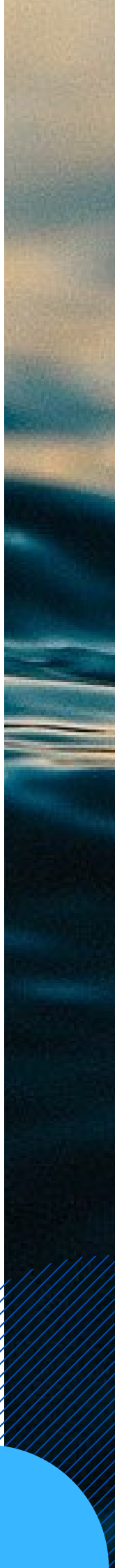
- do not throw waste such as used kitchen oil, used for frying, in the sink drains or in WC. One drop of spent oil pollutes one thousand litres of water.

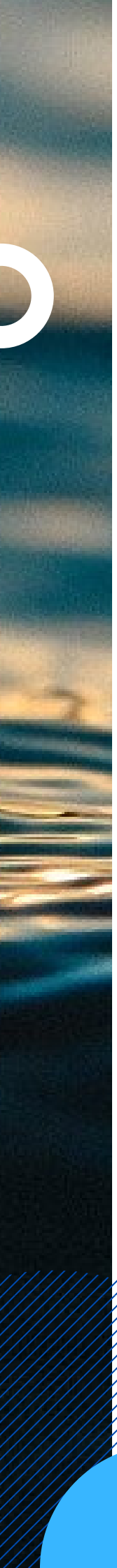
- also, never throw expired medicines or cosmetic products into the toilet or sink!

Questions for class:

- How do human activities cause water pollution?
- Why do people pollute water?
- How does pollution affects water?
- Where do toxic materials come from?
- When air is polluted, is rain falling to the Earth polluted too?
- Do children (or small Beagles) generate pollution?
- Do you pollute water? How?
- Do you remember if you have seen any polluted water, and if so where?
- Where was the cleanest water you ever drank?
- Where does the water in bottles come from?
- Why do we put water in plastic bottles?
- Does plastic pollute water?

- Do fish eat small pieces of plastic cleared in
- the sea or ocean?
- Do you eat fish? Does that mean that you eat plastic that is in the fish?
- How often do you use plastic and what for?
- What do you do with it when you use it?





Why taking care of water quality is important?

About 2 billions of people all over the world do not have drinkable water at home. In some countries, there is not enough drinkable water to satisfy the needs of the whole population.

Access to clean drinking water is a major problem in poorer areas of the world: water pollution and low quality water can lead to dangerous bacteria, disease and viruses such as *Escherichia coli* and *Cryptosporidium*.

Pollution affects any kind of water: rivers, lakes, ponds, oceans, groundwater. Polluted water impacts the environment, produces consequences on human health, impacts on harm and extinction of plants and animals, spoils the production of food.

The effects of water pollution can lead to human and animal diseases, death of aquatic animals, impaired aquatic habitat and destruction of ecosystem, etc.

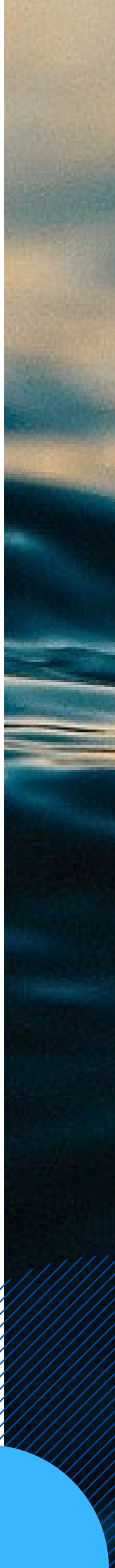
Life on earth is not possible without water!
Humans, animals and plants depend on water, including you and our dear beagle!

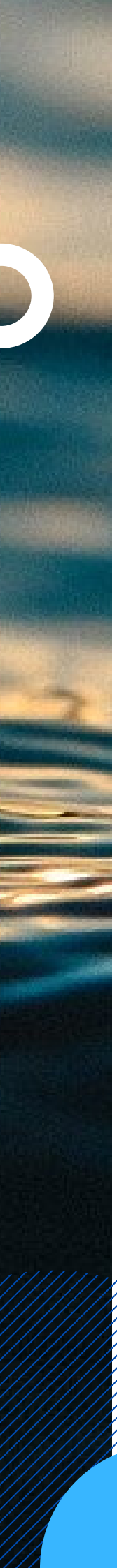
Questions for class:

- How does water pollution affect our health?
- How does water pollution spoil the production of food?

- Our little friend Beagle is a very curious dog, so he likes exploring remote places and he covers long distances ... in doing so he gets very thirsty!!! :)
- Can our friend Beagle choose which water to drink?
- Do other animals have the same choice?
- When our Beagle jumps in a pool of polluted water, can he get ill?
- Do you know some animals that can survive without water for long periods?
- How long can you live without water?
- Do people drink the same water as animals?

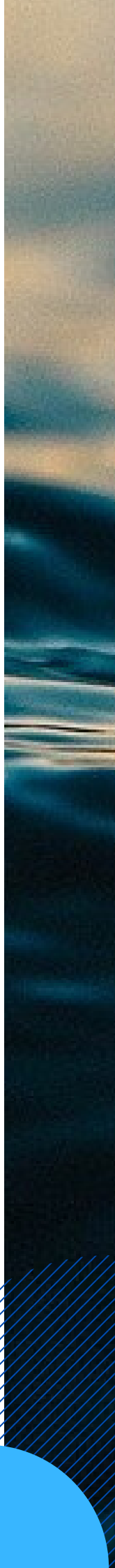
- **If you were water, what would be your main message to humans?**





Can you imagine a future where all the water is polluted? How would it be?

In these two blank pages, draw a picture of the future you imagine!



How can people protect water?

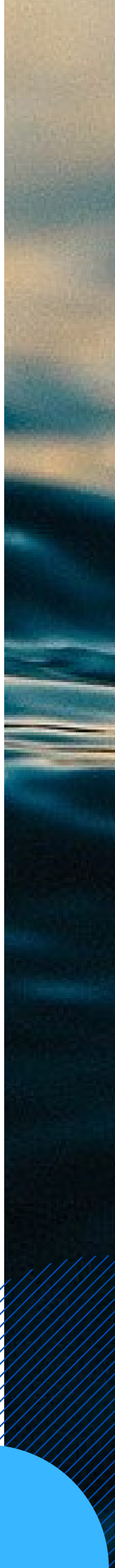
Some people believe pollution is an inevitable result of human activities.

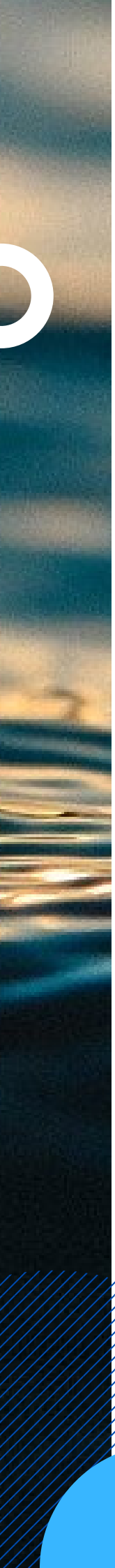
If we want to live in cities, have cars, trains, ships, oil, food to eat, services and goods of various kind, some degree of pollution is certain to result.

Questions for class:

- Is pollution necessary to make progress or can we live as we do without polluting the world?
- Can water pollution be stopped? How?
- What can you, as an individual, do to prevent water pollution?
- How can you use water wisely, without wasting it?
- How important is recycling plastic materials,

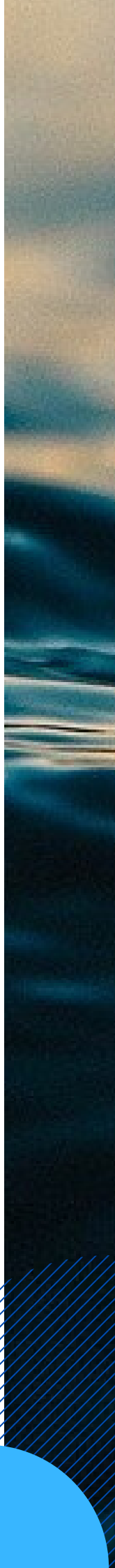
to avoid that they get dispersed in a river or in the sea?





If you had a superpower connected to water, what would it be and how would you use it?

In these two blank pages, draw a picture of your super powers and their effects!



Methodological chapter

The methodological basis for conducting workshops, classes or lectures using this picture book is derived from the educational material **Calm still lake** developed as a part of the Erasmus+ project BEAGLE (Bioethical Education and Attitude Guidance for Living Environment).

Together with the methodology described bellow, all the materials can be found on the project web-site: **www.projectbeagle.eu**

Calm still Lake

Introductory note:

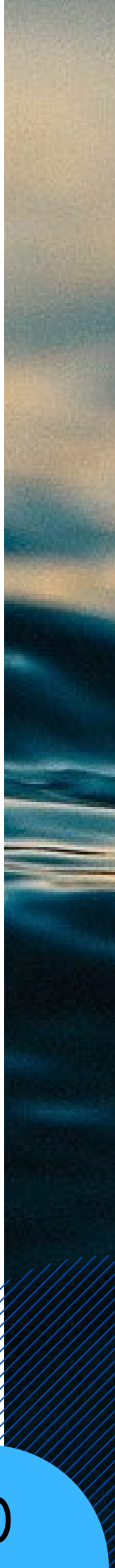
Be sure that number of participants, time and level of discussion are adapted to the group age. This workshop can be held indoor or outdoor!

- **Age range:** 6-10 years old
- **Time:** 85-140 minutes
- **Group:** 10-15 participants
- **Materials and tools:**
    - **for the experiential activity:** 1 used plastic bottle every two/three children (capacity 1,5 litres or 2 litres), watercolours, tempera colours, sugar, coffee powder, chocolate powder, milk, pebbles, nuts, topsoil, clean water from the tap.
    - **for the art activity:** pencils, colored pencils, crayons, markers (enough for all the students), watercolors, tempera colors, brushes, glue, tape, magazines with pictures, scissors, paper sheets (A1 format, one sheet of paper every two/tree students).

- **Educational methods:** mindfulness, experiential activity, art work

- **Key learning points:**
  Rising participants' consciousness about:
  - the major causes of water pollution
  - effects of water pollution on the environment
  - how to prevent water pollution
  - ecological implications of human activities
  - how to find a balance between human's needs and the necessity of water conservation
  - clarification of personal goals and values
  - the 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 critical thinking in children

- **Keywords:**
  - water (rivers, lakes, oceans, groundwater)
  - polluting human activities
  - interconnection, empathy, compassion, kindness, caring, non-dualistic consciousness



Step by step - how to do it?

This workshop is composed of 4 parts:

1) a mindfulness practice

2) proposition of an environmental ethical issue and discussion through an experiential activity

3) art activity aimed to reflect upon the issue proposed and aimed to consolidate the new concepts learnt

4) 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.

- For the purposes of this publication, **only the first activity (mindfulness practice) will be explained.** The rest of the workshop can be found, as well as all other educational materials, on the project web-site:

www.projectbeagle.eu

Mindfulness practice

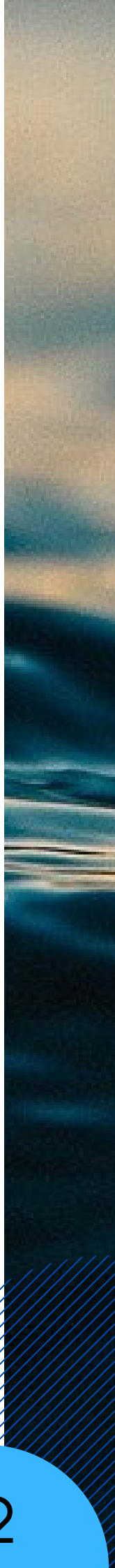
Introduction

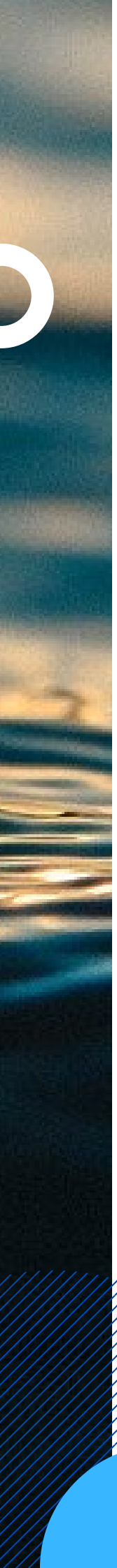
Students are invited, through a mindfulness practice, to prepare their senses, body and mind to get in contact with the natural world. The natural world can be a great source of beauty and inspiration. The lake meditation will allow students to connect to the natural world, to feel at ease, to still the mind and ground the body and to stimulate attention through guided imagery. This mindfulness practice can be experienced either indoor or outdoor, in a park/green area if possible.

Next steps - activity 1

Depending if they are indoor or outdoor, educator invites students to lay down on the ground or to take a seat on a chair, bench, trunk, so that they'll have the soles of their feet on the ground. Be careful to sit comfortably. Then, educator will continue:

"Begin by closing your eyes and letting your body relax. Let go of your toes ... your feet ... your ankles ... your calves ... legs ... relaxing your stomach ... your chest ... both arms ... all the way relaxing down to your fingertips. Now relax your head and neck... let your whole body feel peaceful and floaty. Let your body feel safe, and secure, all is okay for right now, everything in the world is peaceful, at safe and at peace. As you are feeling calm and more calm, breathing in and out, in and out, allow yourself to imagine a still calm lake. This could be a mountain lake, or a lake in the woods, it could be big or small. Notice if there are stones around your lake or maybe there are trees. This lake is filled with fresh, still water. As you are watching the still, quiet lake, you see that the surface of the lake is so calm it is like a mirror, a smooth sheet of glass, completely calm and completely still.
You are like that lake."





Continued:

"Allow the events of the day, the events of the classroom and the noise and busyness to fade from your thoughts as you gaze at this calm, still lake. Now as you are feeling that calmness in your mind and body, imagine that you drop a pebble into the water and feel the gentle ripples of peace spreading slowly and smoothly from the centre of the water to fill all of you with calmness, with stillness, with peace, flowing throughout your body and mind.

Know you can return to the edge of this lake in your imagination whenever you need to reconnect with that peace and that stillness inside of you.

Now begin to wiggle your toes and fingers and gently return your attention to what is surrounding you. You are relaxed and focused.

You can open your eyes when you are ready."

Total time of activity: 10-20 minutes

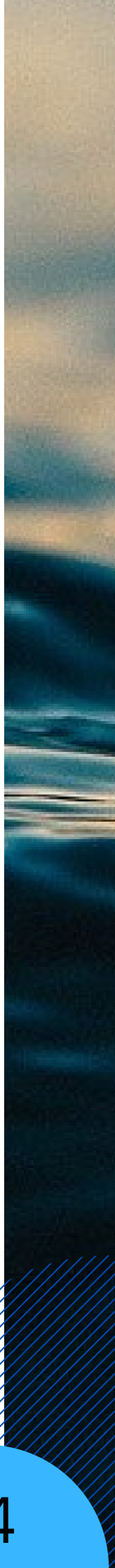
Tips for facilitators

- 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.

- Talk with a very natural, smooth, calm, soothing voice; the tone should be gentle and inviting.

- Before teaching this, it is good if you educators have time to practice the exercise themselves.

- "Since mindfulness is not a religious or spiritual practice, when teaching mindfulness sessions it's important to avoid using terms or materials or developing rituals that might have spiritual 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". Smiling Mind. (2018). Evidence based guidelines for mindfulness in schools - A guide for teachers and school leaders. Australia.



For more info about the BEAGLE project and other open educational resources, visit:

www.beagleproject.eu

BEAGLE partners:

Association for supporting of informal education, critical thinking and philosophy in practice "Petit philosophy" (Zadar, Croatia)

STePS (Bologna, Italy)

Association Internet Now! (Athens, Greece)

University of Ljubljana - Faculty of Theology (Ljubljana, Slovenia)

University of Split - Centre for Integrative Bioethics (Split, Croatia)

Co-funded by the Erasmus+ Programme of the European Union

AGENCY FOR MOBILITY AND EU PROGRAMMES

beagle Bioethical Education and Attitude Guidance for Living Environment