



# The Clean Planet starts with us: Don't Litter



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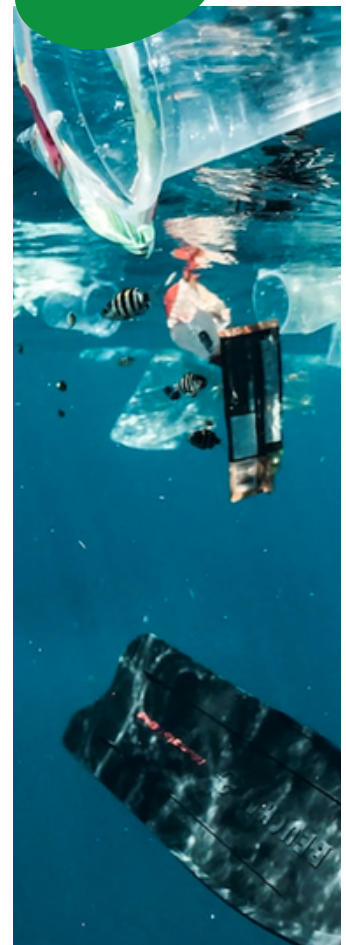
The 4th Primary School of Pefki, Greece

*“Our school, has been participating in actions and campaigns for the environment for many years, it has already been awarded two Eco-Schools Green Flags. I designed my lesson plan in the summer of 2023 during my vacation, next to the still clean Aegean Sea. My love for the sea and the protection of marine life became a need for my personal mobilisation. I thought that our students needed to get a more organised knowledge about the problem of microplastics”.*

## Learning Objectives

- ✓ Explain what waste is.
- ✓ Appreciate the impact of the problems caused by plastic waste in a marine environment.
- ✓ Give examples of how a person could easily reduce plastic waste, even eliminate it.
- ✓ Accept that individual behaviour plays a decisive role and contributes to the protection of the environment.
- ✓ Propose smart alternatives to help for a sustainable present and future.

Suitable for  
ages 7-12



## Introduction

Students discuss the importance of reducing waste and managing it properly. They learn about the depletion of the Earth's natural resources, the volume of waste, and how its increase negatively affects the environment, animals, and people. The problem of plastic pollution is highlighted, which is considered one of the most serious environmental problems facing our planet because it damages wildlife, ecosystems, and human health and contributes to climate change. It is one of the 17 goals of sustainable development (GOAL 12 – RESPONSIBLE CONSUMPTION AND PRODUCTION).

The project aims to help young primary school students to develop ecological awareness, change their daily behaviour to adopt a more ecological, economical, healthy, and sustainable lifestyle, to help them understand why they should not pollute, and also to raise their awareness to make a difference by participating in community service projects that help reduce plastic waste.

Students also approach the 5Rs of Waste Management as part of the solution.

## Teacher Preparation

Before the lesson, the teacher must collect and bring to school waste such as plastic bags, plastic water, and juice bottles, plastic screw caps, paper packaging, paper towels, detergent packaging, a used toothbrush, straws, toys such as Legos, a worn cotton t-shirt, a worn woollen cap and organic waste such as banana peels, leaves, twigs for an activity.

We will need to bury the various materials in the schoolyard to determine the degree of degradation so need to agree with caretaking staff and senior leadership where this will be located.

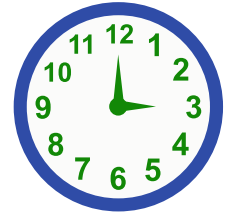
The teacher will need to provide 6 small carving tools and several pairs of gardening gloves and be able to give guidance on how to use the small carving tools to avoid accidents.

Full safety procedures and risk assessments for your school setting must be followed and adhered to for any litter-picking activities carried out with st



## Timings

This is a series of 14 lessons that can be carried out over a period of approximately 3 months, each lesson lasting 45-60 minutes.



## Lesson 1

To get the attention of students, the teacher first mentions a statement by scientists in the newspaper "ETHNOS", 24-03-2022, in the article "*Scientists have detected pollution from microplastics even in human blood*".

<https://www.ethnos.gr/health/article/200737/rypanshapomikroplastikaentopisanepisthmonesakomakai stoanthropinoaimaand>

The teacher then shows videos with images of reality, to introduce students to the concept of waste and plastic pollution.

<https://youtu.be/n7HVcGLOu80>

Immediately after the screening, the teacher asks the students three questions:

- What do you see?
- What do you think is happening?
- What does it make you wonder?

The teacher asks students to individually write their answers on paper first before sharing their thoughts with the rest of the class.

**See:** The teacher asks students to watch, or observe, and think silently. They should construct their own opinions first, take some notes, and try to avoid making assumptions.

**Think:** The teacher asks students what they think is happening. What do they think? Why? What has made them think this? What else is happening?

**Wonder:** The teacher asks students what image or object makes them wonder. What questions are sparked? The teacher should avoid defining wrong or right interpretations and let students expand upon their "wondering" to what comes up for them.

After each stage, students can share and compare their ideas in pairs or small groups or pairs. Students answer: "*I see...*", "*I think...*" and "*I wonder*"

## Lesson 2

Ideally, deliver this lesson outdoors on the school grounds. Ensuring students will be close to the natural environment. Learning outside the school building will help put the theory into context. Follow of the activities will take place in **Lesson 13** (approx 3 months)

The teacher should explore the student's ideas on waste at the start of the lesson. Using an online (e.g., Kahoot, Google/Microsoft Forms, etc.) or offline (pen and paper) quiz to understand what students already know about this matter.

The teacher divides the class into 6 groups and then spreads various waste on the tables of the groups. These include plastic bags, plastic water and juice bottles, plastic screw caps, paper packaging, paper towels, detergent packaging, a used toothbrush, straws, toys such as Legos, a worn cotton t-shirt, a worn woollen cap and organic waste such as banana peels, leaves, twigs.

The teacher asks: *"What we can do with all this?"*

Beginning the dialogue between student groups. The teacher then asks groups to sort their waste items into categories e.g., "organic waste", "PET plastics", "hard plastics", "paper", and "textiles" and record them.

Each of the 6 groups has the task:

- To fill in for each waste where it comes from and where it will end up after we throw it away. Example: *"Leaves, which are organic waste, come from plants. Organic waste usually, after we throw it away, is broken down by other organisms and returns to nature."*

The aim is for the students to arrive at the statement that some waste will "disappear" in the future, but some others will remain so for many, many years. Then the teacher encourages the students to think and answer the question: *What can we do with plastics, with paper packages, with Legos, with clothes (t-shirt, cap)?"*

Students' answers are recorded on the board or paper. The teacher must encourage students to express their ideas and mention what waste segregation and recycling are.

**REMEMBER TO GET PERMISSION TO COMPLETE THIS STEP AND MARK THIS AREA OF THE SCHOOL GROUNDS.**

The teacher then suggests that they dig in a part of the schoolyard and bury a piece of each type of trash. To leave them buried there for three months to complete a 'Waste Autopsy' where they record and photograph the condition (decomposition or not) of the buried objects. Hypothesizing what will have happened to each waste item.

After the process is complete, students make their assumptions which are recorded on a worksheet

## Lesson 3

The teacher chooses at this point to make the students more aware of:

- The excessive production of plastics
- The waste that does not end up in the garbage bins but on the roads or in the sea causes pollution in the environment

The teacher shows students the video: *The future with plastics*

[https://youtu.be/xy7eZNAo\\_eA?t=65](https://youtu.be/xy7eZNAo_eA?t=65)

The teacher suggests that each group play the digital game, placing the cards to show the process by which plastic ends up in our food:

<https://learningapps.org/view31269593>

The teacher asks students to evaluate the situation by writing a sentence in the collaborative table on "How could we get rid of microplastics". Discuss all answers as a group.

[https://jamboard.google.com/d/1m5whejAfHBVgo3ZYz0YRqn0\\_nep4PLG2r7bVL-e89og/edit?usp=sharing](https://jamboard.google.com/d/1m5whejAfHBVgo3ZYz0YRqn0_nep4PLG2r7bVL-e89og/edit?usp=sharing)

## Lesson 4

Two new topics are introduced in this lesson

- What is "plastic soup"?
- How do microplastics end up in our food?

The teacher shows the videos below allowing time for discussions between videos.

- Plastic Trash Is Littering the Earth <https://youtu.be/jyLjUEOcLgg>
- How does plastic end up in our oceans <https://youtu.be/Our5CZz5qoU>
- The journey of plastic <https://youtu.be/bDGXVx7sf3g>

The teacher distributes worksheets and asks the students to work in pairs.

[https://www.canva.com/design/DAFp7xLrKQs/gDDU8H1zin9VTxg6jx\\_4vA/view?utm\\_content=DAFp7xLrKQs&utm\\_campaign=designshare&utm\\_medium=link&utm\\_source=publishsharelink](https://www.canva.com/design/DAFp7xLrKQs/gDDU8H1zin9VTxg6jx_4vA/view?utm_content=DAFp7xLrKQs&utm_campaign=designshare&utm_medium=link&utm_source=publishsharelink)

The teacher divides the class into 6 groups, asking each group to construct a concept map that starts from a specific focus question: "*What is waste pollution?*".

The teacher encourages students to mention the most important pollution created by human waste such as plastic pollution. The teachers collect the concept maps which will be used in **Lesson 14**.

## Lesson 5

The teacher asks the students to study the choropleth map that shows ocean plastic pollution worldwide. The teacher gives additional explanations to enable students to interpret the colours (*if necessary for younger students*).

With the dialogue that follows and the questions that the teachers ask they will guide the students to conclude that the whole planet is 'sick because of plastic pollution' and immediate intervention and a drastic solution are needed.

[https://www.canva.com/design/DAFp7gGCAgg/qyceF8bQZy2S3F2cbPq7Sg/view?utm\\_content=DAFp7gGCAgg&utm\\_campaign=designshare&utm\\_medium=link&utm\\_source=publishsharelink](https://www.canva.com/design/DAFp7gGCAgg/qyceF8bQZy2S3F2cbPq7Sg/view?utm_content=DAFp7gGCAgg&utm_campaign=designshare&utm_medium=link&utm_source=publishsharelink)

### Four Corners.

The teacher assigns smiley faces to the four corners of the room: Strongly agree, Agree, Disagree, Strongly Disagree. In the centre of the room: Don't Know.

The teacher then reads a specific statement about an environmental issue: "*They will inherit plastic pollution and their future will be bleak if we don't do something immediately!*" Then prompt the students to vote by going to the corner of the room that corresponds to their opinion or staying in the centre of the room.

From the position they are in, they express their point of view and can change their position if they want.

[https://www.canva.com/design/DAFp0TQYIS8/t2Q3j-2y5ilQGROwBskZ1w/view?utm\\_content=DAFp0TQYIS8&utm\\_campaign=designshare&utm\\_medium=link&utm\\_source=publishsharelink](https://www.canva.com/design/DAFp0TQYIS8/t2Q3j-2y5ilQGROwBskZ1w/view?utm_content=DAFp0TQYIS8&utm_campaign=designshare&utm_medium=link&utm_source=publishsharelink)

## Lesson 6

Approach to the issue of marine pollution from microplastics by scientific researchers from EV Nautilus. Watch from the 9th to the 27th minute. *This video is in Greek subtitles will need to be switched on in your YouTube settings:* <https://youtu.be/tv9-nwt6Hlc>

Students make notes from the Nautilus researcher's presentation on this handout

[https://www.canva.com/design/DAFqH-nfeKw/2023tNvbUO51wsQFZpYjQA/view?utm\\_content=DAFqH-nfeKw&utm\\_campaign=designshare&utm\\_medium=link&utm\\_source=publishsharelink](https://www.canva.com/design/DAFqH-nfeKw/2023tNvbUO51wsQFZpYjQA/view?utm_content=DAFqH-nfeKw&utm_campaign=designshare&utm_medium=link&utm_source=publishsharelink)



## Lesson 6 cont.

### Card Game

The teacher divides the students into 6 small groups and assigns each group a specific aspect related to the origin and management of waste raw material. For example: A single-use plastic bottle from which raw material is it made, how does it reach the hands of the consumer and what happens after it is used. The teacher gives each group cards and asks the students to put them in the correct time order, starting with the 'past' and ending with the 'future'. Students are given 10 minutes.

At the end of 10 minutes, each group presents to the others the stages of development of their aspect. Students place their cards on the board. The teacher encourages students to focus on the first and last tabs. Examples below



## Lesson 7

### Partnership with a non-profit organization

Collaboration can be done with either an online course or an in-person course. If neither is possible, the teacher obtains permission to use non-profit organization materials, such as an information campaign.

[https://www.canva.com/design/DAFqGH5f8H4/KFYtCc7b5ArZNF1ub5yf-Q/view?utm\\_content=DAFqGH5f8H4&utm\\_campaign=designshare&utm\\_medium=link&utm\\_source=publishsharelink](https://www.canva.com/design/DAFqGH5f8H4/KFYtCc7b5ArZNF1ub5yf-Q/view?utm_content=DAFqGH5f8H4&utm_campaign=designshare&utm_medium=link&utm_source=publishsharelink)

After the students have watched the awareness campaign of the Hellenic Recycle Agency, the teacher chooses the topic "*Helping my family manage waste*" and assigns the groups to act out short role-play scenarios to help students manage how they will speak with their parents, their siblings etc about plastic waste and how their actions are possibly burdening the environment with their choices and how to overcome this. The teacher observes the students and the decisions they make.

Groups present their short role plays and the teacher asks them to explain their actions and how they choose to speak with their family to change their consumption habits and say no to plastics.

## Lesson 8

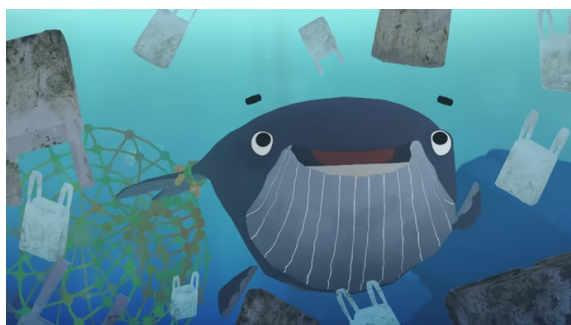
Screening of short animation (**recommended for ages 7+**)

### Psaroloco International Film Festival for Children & Young People: A Whales Tale

This 3-minute animation is a vehicle for the development of literacy to use in class. Every element of an audiovisual text can carry meaning.

<https://youtu.be/xFPoIU5iiYQ>

The animation tells the story of how marine plastics threaten the environment and the lives of small sea creatures until a whale comes to their rescue. This whale sees the effects of water pollution and does his part to clean up the ocean. Meanwhile, on land, the young son of a fisherman is trying to bring awareness to the amount of plastic in the ocean. In the end, the small boy's efforts are rewarded and he, and the other humans, can help the whale.





## Lesson 8 cont.

After viewing the video, the teacher can ask students questions such as:

- What happens in the beginning, middle, and at the end of the story?
- What are the most important things (events) that happen in the story?
- What do you think happened before the story began?
- What might happen next, after the end of the story?
- How would you like the story to continue?
- Which character interests you the most?
- What clues might there be to tell us whether the story is set now or in the past?

### Speech Bubbles

After the students' opinions have been heard, the teacher asks the members of the groups to choose to be one of the heroes of the story (shrimp, turtle, whale, jellyfish, lobster, octopus) and to write in the speech bubbles what they think that creatures message would be to people to persuade them to stop using plastic. The goal is for each group to create their fliers where they will point out that plastic pollution can contribute to the destruction of ecosystems and cause irreparable damage to our health and urge people to reduce the use of plastics.

## Lesson 9

The teacher shows pictures of the North Pole:

[https://www.canva.com/design/DAFqGIOqiFA/eGNiNvN9JCy-l-TBgSALow/view?utm\\_content=DAFqGIOqiFA&utm\\_campaign=designshare&utm\\_medium=link&utm\\_source=publishsharelink](https://www.canva.com/design/DAFqGIOqiFA/eGNiNvN9JCy-l-TBgSALow/view?utm_content=DAFqGIOqiFA&utm_campaign=designshare&utm_medium=link&utm_source=publishsharelink)

Then assign the task: *“You see that a little bear is playing with a plastic bottle. What do you think about it? Does it have a place in its environment? Explain your reasoning.”*

The teacher distributes the worksheet below to each group. Allowing provides 15 minutes for students to discuss and record their reasoning.

[https://www.canva.com/design/DAFsb4WIE3M/LEB3BHH3CvzM3fVs1gU\\_MQ/view?utm\\_content=DAFsb4WIE3M&utm\\_campaign=designshare&utm\\_medium=link&utm\\_source=publishsharelink](https://www.canva.com/design/DAFsb4WIE3M/LEB3BHH3CvzM3fVs1gU_MQ/view?utm_content=DAFsb4WIE3M&utm_campaign=designshare&utm_medium=link&utm_source=publishsharelink)

Then the teacher asks the questions:

1. What habits do the students of our school have?
2. Do they use plastic packaging at school?
3. Could we record their habits?
4. Can we transform our school into a school with zero plastic waste? How?

In the discussion that follows, the teacher tries to encourage the students to investigate with the aim of highlighting the container that the students of the school use for their daily water transport (*disposable plastic bottle or steel/glass bottle?*)

## Lesson 10

Students, divided into small groups, will go through all the classes in their school with their questionnaire of the 4 questions from Lesson 9.

After visualizing the results into graphs, students will communicate findings to their classmates. At the same time informing them about the harmful effects of using single-use plastic. Students will be encouraged to help their classmates REFUSE or REDUCE the amount of single-use plastic they use.

After a month students can repeat the questionnaire to check if their information campaign has had an impact on their classmates and if they changed their single-use plastic habits.

## Lesson 11

The questionnaire could be carried out a second time to highlight how students bring their snacks and lunch to school every day (*disposable plastic bags, paper bags, tiffin boxes, manufactured packaged food, etc*).

Packaging is a growing issue. On average, the average European produces almost 180 kg of packaging waste per year. The students aim to sensitize their classmates to combat excessive plastic packaging and promote its reuse or recycling. As with Lesson 10, students would be encouraged to help their peers persuade their families to find a more sustainable way to bring their food to school- possibly making leaflets to send home in lunch boxes or to have on display in the school canteen.

## Lesson 12

A litter pick around the school grounds is organized. The teacher gives each group gloves, a cardboard box, and a small bag to collect the litter. Plastic waste and reusable waste go into the box. Dirty and unrecyclable waste goes into the bag for the waste bin.

Returning to the classroom, students separate all plastic and reusable litter that they collected into the boxes. Students have to decide what to do with the litter they collected: recycle or reuse.

The teacher suggests that they keep some of the litter to make an art installation with the theme "*The sea I wouldn't like to have*". Reminding students of the work they did in Lesson 1 that all garbage that is thrown on the land can end up in the sea!

## Lesson 13

Approximately three months after the burial of the materials in [Lesson 2](#), the teacher asks the 6 groups to conduct a 'Waste Autopsy' by recording and photographing the waste items they buried.

In class, students will compare the data they have collected and compare it to the hypotheses they had originally made. They will announce the results in an infographic.

## Lesson 14

The teacher divides the class into the same 6 groups they were in during [Lesson 4](#) to add elements, if any, to the concept map they had originally completed: "What is waste pollution?"

The teacher collects the groups' concept maps and observes the additions. Discuss with students what led them to make or not make additions. These are placed on display around the school and can also be submitted as evidence for Monitoring and Evaluation when applying for the Eco-Schools Green Flag.

### Conclusion and Evaluation

- Students create a poster on the topic: "Reducing plastic waste". In this way, they will inform their classmates and the local community about the issue. Their goal is to convince the school community to want to use less plastic and refuse single-use plastic. The poster should be posted in a prominent place in the school, on the website or blog, or in the electronic school newspaper.
- Creation of an Eco-Code entitled: "*We keep the planet clean! Our suggestions are...*"
- Students will present to their classmates the results of research on the use of single-use and other plastics.
- Students can organize a day to present their projects to their classmates, parents, and the entire local community.
- Students can publicize their actions in the local newspapers, and on the school website, and possibly submit as entries for Young Reporters for the Environment.

Students complete the evaluation survey

[https://www.canva.com/design/DAFsnoN3i84/HRXZK6dXtT4yhqz02Mcy-Q/view?utm\\_content=DAFsnoN3i84&utm\\_campaign=designshare&utm\\_medium=link&utm\\_source=publishsharelink](https://www.canva.com/design/DAFsnoN3i84/HRXZK6dXtT4yhqz02Mcy-Q/view?utm_content=DAFsnoN3i84&utm_campaign=designshare&utm_medium=link&utm_source=publishsharelink)

## Extension Activities

Regular visits to the clothes recycling bin, because clothes recycling supports local charities and community authorities.

Creation of a Green Spot in the school area where recycling bins for batteries, electrical and electronic devices, aluminum, plastic, paper, and printer ink cartridges will be placed.

Coast or stream cleaning in collaboration with parents, the local authority/businesses, and environmental charities.

Create a Plastic Waste Board Game.

*Check off what you think you can do!*

### What Can you do?

	I do this	Plan to do this	Can't do this
<b>Use less plastic</b>			
<b>Use plastic alternatives</b>			
<b>Don't litter with plastic waste at school</b>			
<b>Clean up plastic waste around school</b>			
<b>Separate plastic waste</b>			
<b>Reuse plastic waste (crafts)</b>			