



Microplastics

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Abstract

Feel

Imagine

Did you ever wonder what happens with all the thrown plastics in the rivers, seas or oceans? What are microplastics and how do they impact the environment? What can we do to reduce microplastic pollution? The main aims of the lesson activity are: to study the origin of microplastics and their effect to the environment and living organisms and to study different ways to reduce and extract microplastics in nature. Students will study about magnetic extraction of microplastics from the environment. Students will play educational games and activities using technology and equipment provided by LFE project. Students will perform an experiment.

Keywords: microplastics, plastics, environmental protection, environmental pollution, digital technologies

The proposed topic is one of the "hottest" among the environmental problems the humanity faces. Especially in rural places where there are no separate bins for collecting trash. Students can propose a different ways for obtaining plastics like reusing, reducing or replacing. The main challenges are realizing the problem and facing the solutions.

Students perform a real experiment to prove that plastics can be extracted from water under the form of magnetic solution. Link to the video with the experiment students made:

Extraction of Polyethylene microplastics using a permanent magnet.

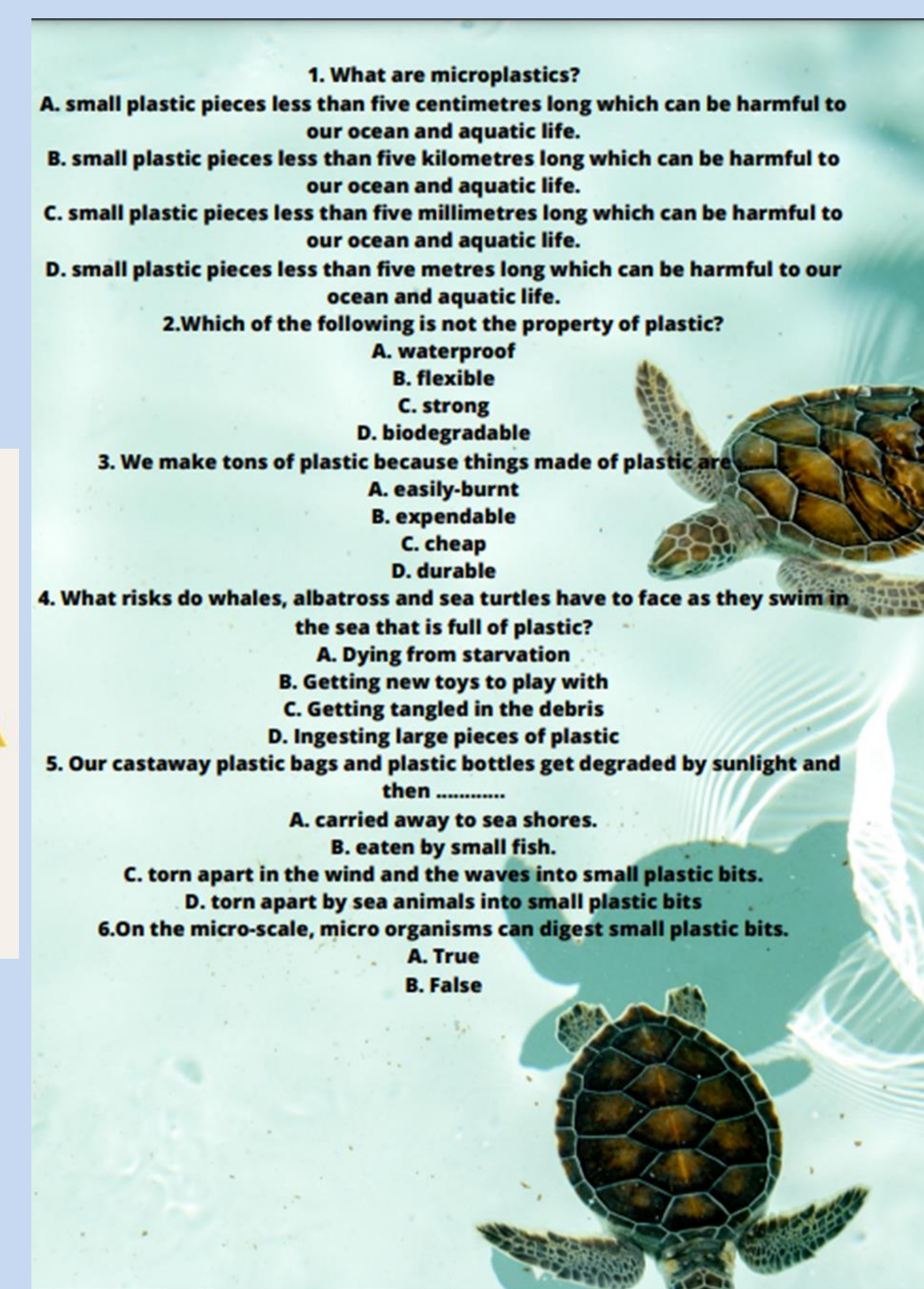
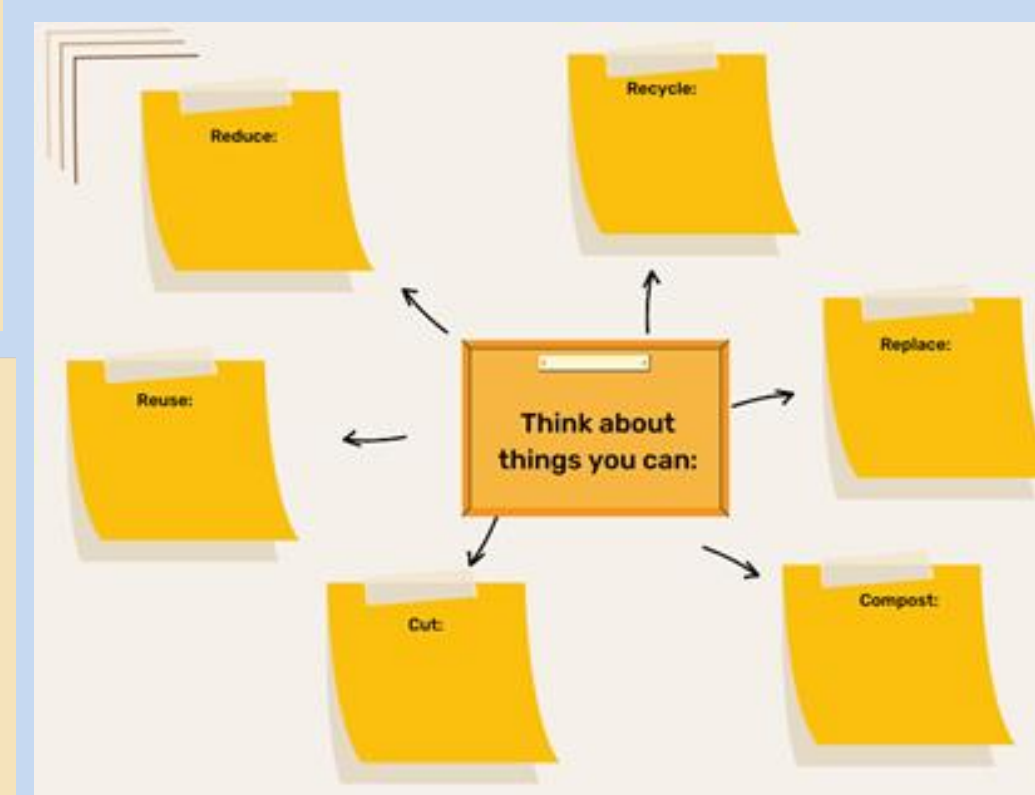
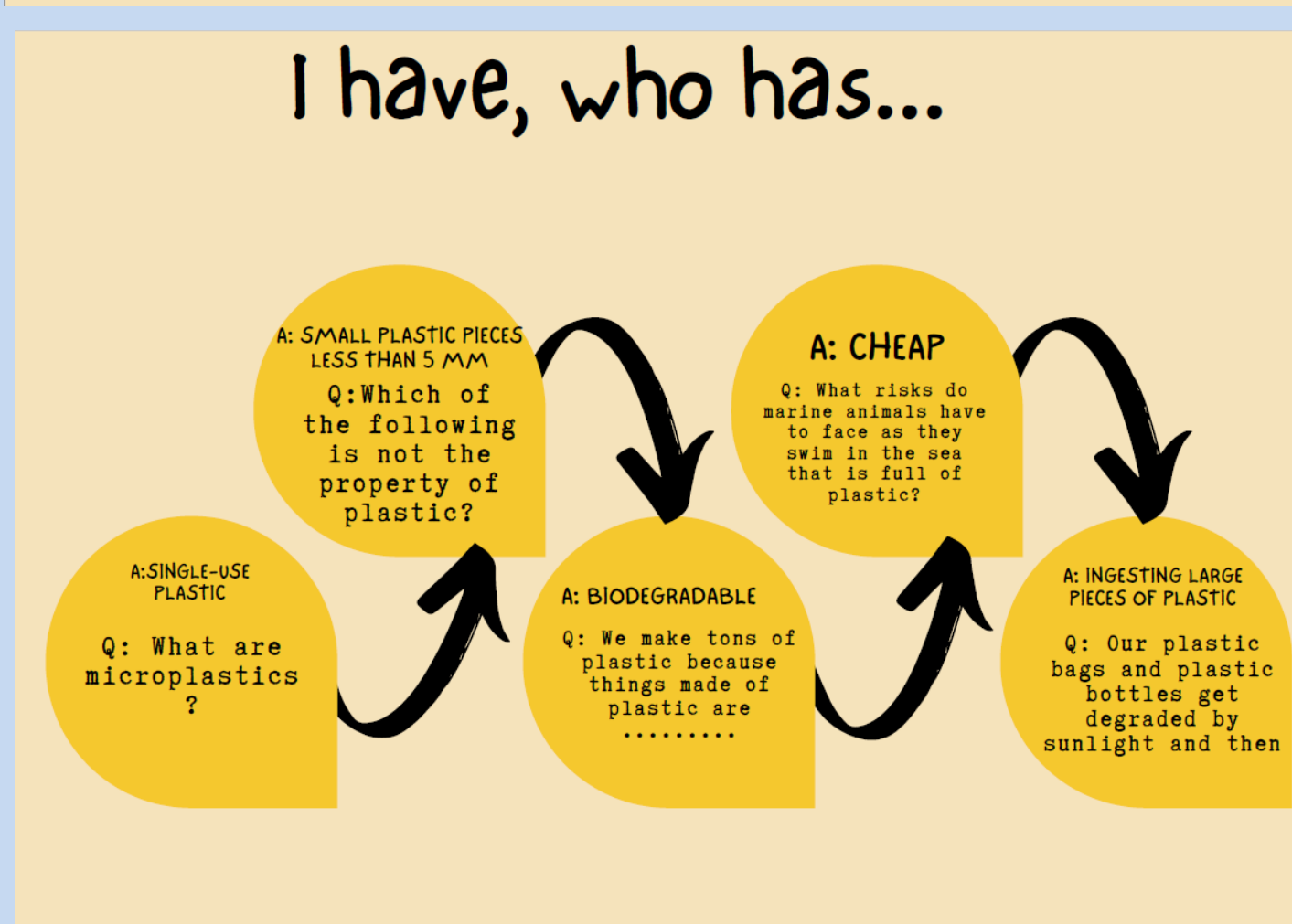
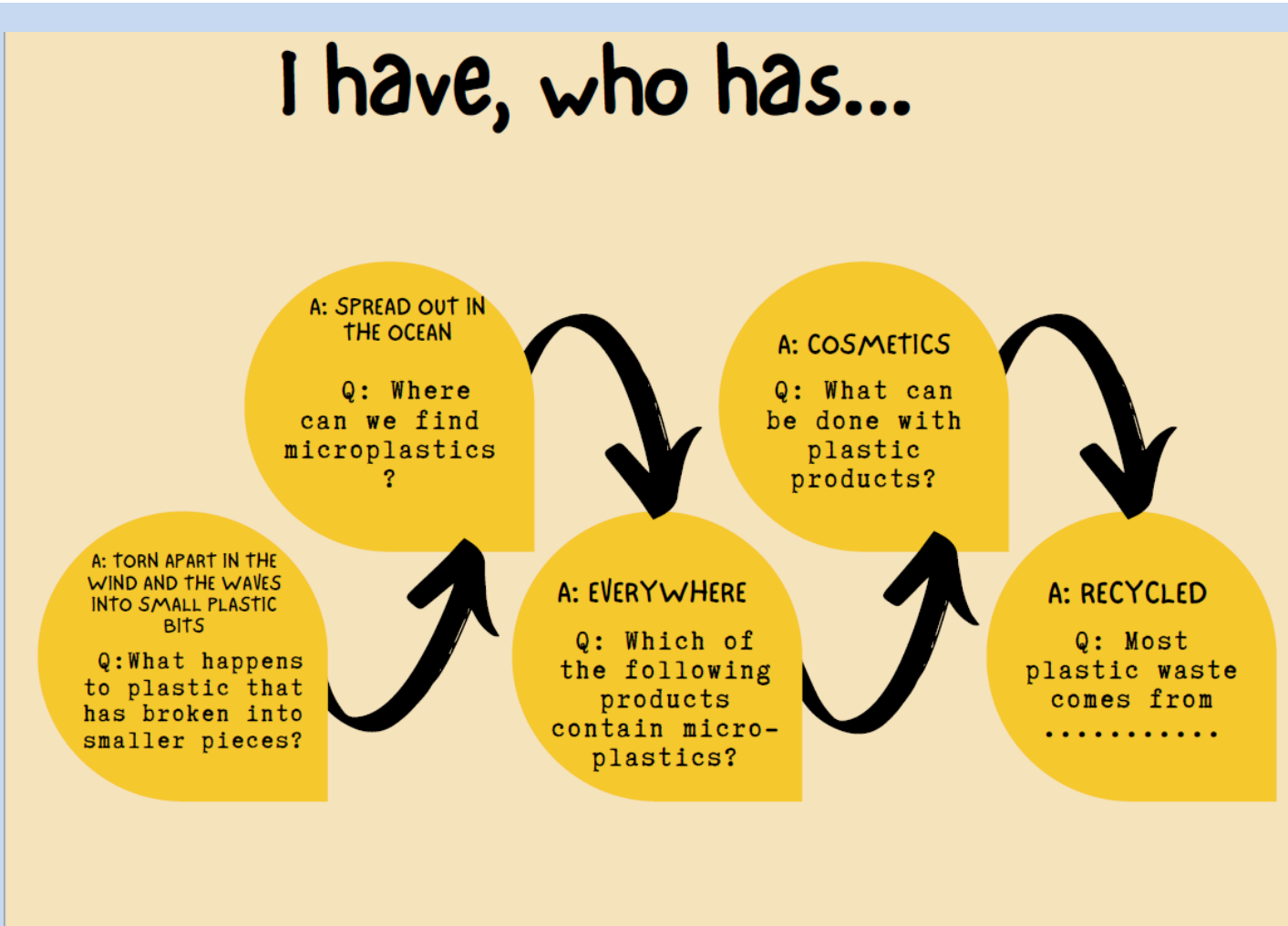
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Description

The project combines traditional learning with using of modern technologies like VR glasses, tablets and interactive digital screens. The first task will be students to make their own research about microplastics using Chromebooks. Then students will perform an experiment, showing how is possible to clean the water from plastics and will solve different tasks on the digital screen. The last activity is connected with presenting a short video about microplastics and their impact of marine animals on VR glasses. Realizing the impact of the microplastics is a topic of a great interest both local and worldwide, that's why using modern and digital approaches will engage the attention of students and their awareness to the problem. The students will achieve a mastery of knowledge and skills, but furthermore to make own decisions and influence the others. Using technology make learning more easier, funnier and effective, students are interested in using it. It will add value to the proposed project because it connects real life problems with curriculum and is needed to be proposed real solutions with the help of technology.

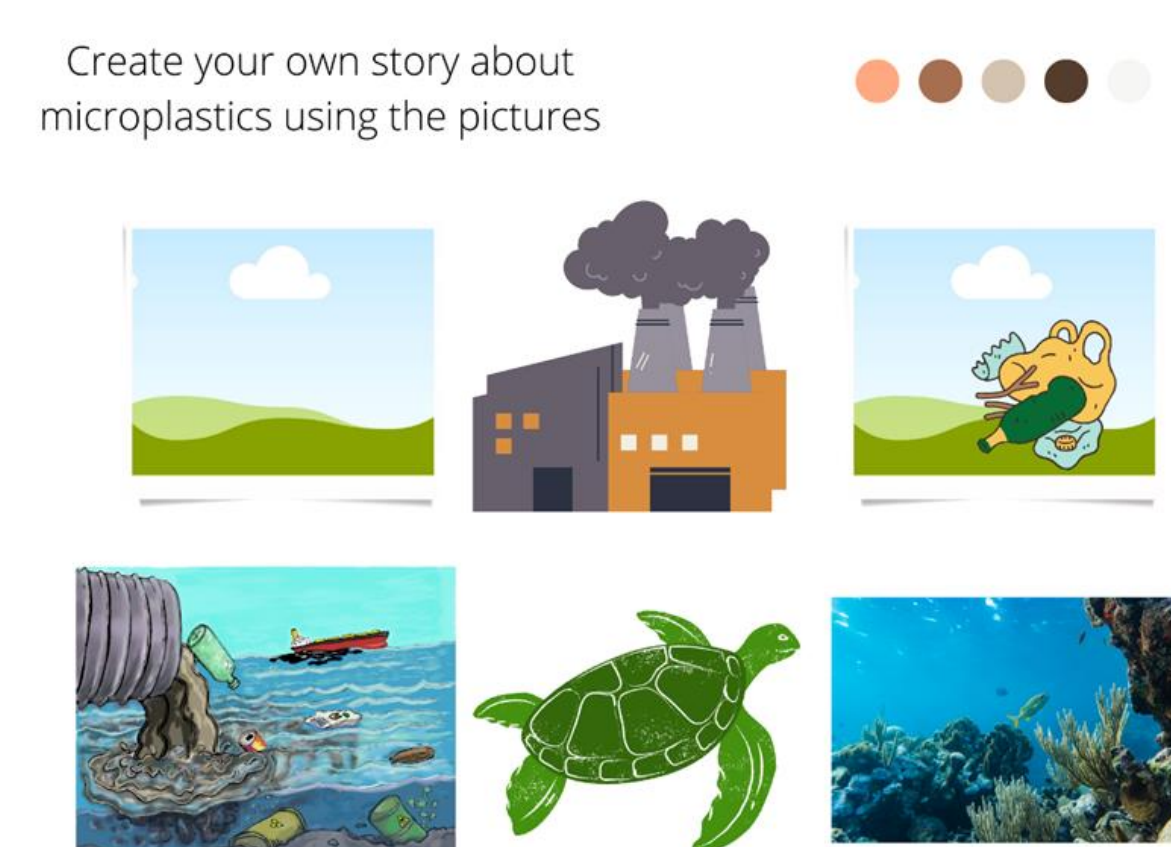
Learning Objectives

- Students will study microplastics, their effects on the environment and living organisms.
- Students will evaluate the role of microplastics in their lives and reflect on their willingness to change their behaviours to help reduce plastic pollution.



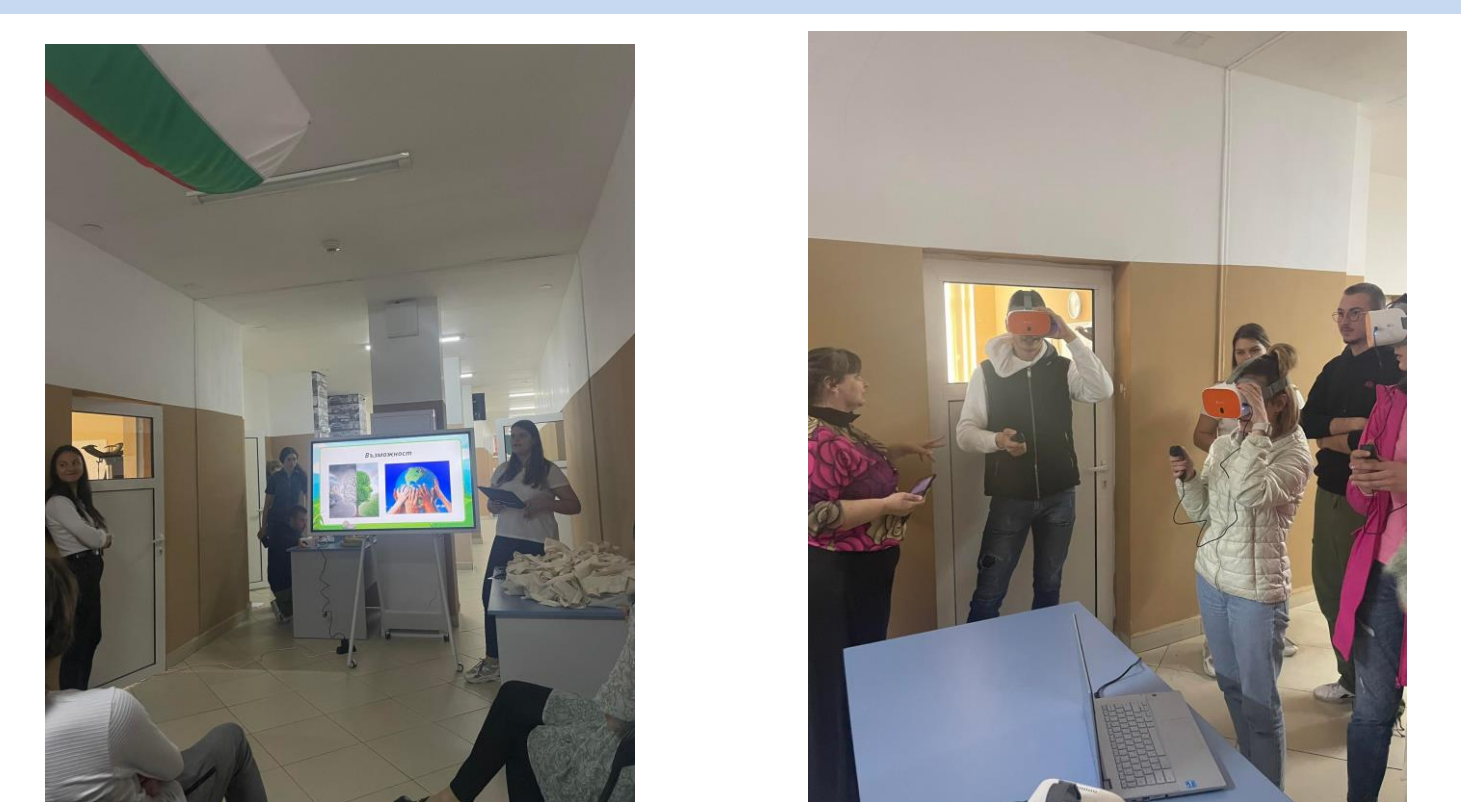
Create

Students create flyers and implement their studies on local and social media. They create a comics using tablets Chromebook provided by the school.



Share

Students presented their work in school



Link on the portal

<https://www.schoolofthefuture.eu/index.php/en/osos/osos-project/microplastics>