

Circular Economy-Bioeconomy-Case Study: The olive tree

The olive tree is common in all the Mediterranean states, useful and necessary for the diet and not only of its inhabitants from ancient times until today.

Primary school students in a playful way and using STEAM tools learned about olive products: a) edible olives, oil (as food and lighting), leaves for compost and drink, b) olive pits, peel and flesh for heating (biomass) and fertilizer and c) frying oil for biodiesel.

They built the olive box with its products, experimented with the oil, drank olive tea and ate olive varieties and paste. They learned about olive soap making, washed and applied olive creams, saw up close the three types of olive biomass and used them to make circular economy posters.

They created 3D collages from dry leaves and olive pits collected from the school garden.

They visited the National Archaeological Museum in Athens and studied the ancient vessels for collecting and transporting olive oil.

They created a large poster-game with "windows" of information and linking knowledge to the Sustainable Development Goals. The poster-game was created as an idea in the experiential workshop for the Circular Economy - Bioeconomy organized by GenB in collaboration with the Hellenic Society for the Protection of Nature under the title "Common Ground Camp: Co-creating new approaches to teaching, raising awareness and disseminating the bioeconomy", a two-day Common Ground Camp to promote bioeconomy practices in school settings and foster a future generation that is enthusiastic about bioeconomy and adopts more sustainable habits and lifestyles, 21-22/2/2023 in Athens

The Common Ground Camp is aimed at both formal and non-formal education communities (universities, education policymakers and regional authorities, school administrators, teachers, and other multipliers such as museums, science communicators, youth organizations, and community groups), as well as EU-funded projects/initiatives. GenB is a 30-month project, funded by Horizon Europe, the European Union's funding program for research and innovation.

They interviewed a geologist and a forester about plants and soil and linked up with the Environmental Education Center for Sustainability in Kalamata (a region of Greece that produces one of the best olive varieties in the world) to talk to the expert educators-trainers-scientists about the olive tree, its historical path and its products.

In collaboration with the Bank of Piraeus and the Cultural Foundation of the Piraeus Group, they studied the educational material from digital and printed material of two Museums: the Olive Museum and the Museum of Industrial Olive Production.

They partnered with the company Think Green by collecting whole school (pupils, families and neighborhood) frying oil to be recycled into biodiesel.

We collaborated with the Hellenic Society for the Protection of Nature (an official partner of the Environmental Education Foundation-FEE) and we received two suitcases with scientific experiments and toys for the Circular Economy and Bioeconomy at the school and we engaged with them for a long time. The suitcases were created in the framework of the project "Ways TUP!" (The project has a duration of 42 months, it is financed by the European Union in the framework of the Horizon 2020 program. The project concerns the bioeconomy and its promotion at the European and national level as a solution to reduce the use of mineral resources. More specifically, it aims to establish new value chains of municipal

biowaste, through a multi-stakeholder approach in relation to the circular economy. It focuses on promoting processes of converting municipal biowaste into useful resources, starting from raw materials such as fish and meat waste, coffee grounds, pre-selected household biowaste, used cooking oils etc. and which will result in the production of food and feed additives, flavoring substances, protein from insects, coffee oil, bioethanol, biological solvents, bioplastics, etc. The purpose is to adopt new organizational models that support the utilization of urban biowaste. Hellenic Society for the Protection of Nature is one of the partners in the project, with a total participation of 27 partners from 10 member states of the European Union.)

The project of the class "Circular Economy-Bioeconomy-Case Study: The Olive Tree" is innovative because it concerns the education of 6-12 year old students in the Circular Economy Bioeconomy in the Greek school, it develops in many collaborations of agencies and organizations, it involves students, parents and local society , is diverse and innovative and develops the 6C skills of the 21st century for students: Critical Thinking, Collaboration, Communication, Creativity, Citizenship/Culture, Character Education/Connectivity

The Promotion of the Circular Economy– Bioeconomy in primary school in Greece is a new topic in education for my country.

My cooperation with agencies from Greece and abroad was very efficient in terms of the result.

The children's participation was experiential and comprehensive.

The involvement of the family and the local community helped even more to spread the actions and repeat them as a good daily routine practice for the sustainability of the planet and the climate balance.

You can see the project in detail in the digital magazine of the class "We Have a Goal":
<https://schoolpress.sch.gr/1dimnioniaatt/?p=1952>

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3rd Grade

February-April 2023

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