

May

Month dedicated to PLANTS (18/5: Fascination Plants day) – Do plants and flowers fascinate you? What is the role of plants in environmental conservation? Do you know the importance of plants for agriculture, horticulture, forestry, and all of the non-food products such as paper, timber, chemicals, energy, and pharmaceuticals?

“From one little seed, planted into soil, many green lives can arise – from small herbs up to big trees, or from ornamental flowers to substantial crops which all animals and mankind need to survive on this planet. Plant biologists estimate the total number of plant species roughly to be about 250,000.”

Source: <https://plantday18may.org>

1. Fascinating Plants

Introduction

The aim is to draw attention to the importance of plants, to know and protect them. Plants are essential to our daily lives and a sustainable environment.

Students' age: from 4 years old



Objective:

Realize seedlings to know the life cycle of plants

You will need

The book *Still nothing?* by Christian Voltz
Different seeds and objects
Glasses



Activity

Step 1: *Still nothing?* by Christian Voltz

After reading the book, the teacher proposes to make like the main character: to plant seeds... Pupils look for the different stages of planting in the story (soil, seed, water...).

Step 2: Seed/no seed sorting out

Many seeds (corn, sunflower, pumpkin, bean...) and objects (stones, pearls, pasta, candies, buttons...) are sorted out by groups and put in different plates if the pupils think it's a seed or not. At the end groups exchange about their choices and try to tell what is a seed for them.

1. Fascinating Plants

Activity

Step 3: Validation of the assumptions

To validate the assumptions pupils, plant the «seeds» and «not seeds» in transparent glasses to see if they are growing.

They observe regularly the seedlings, water them and talk about it.

When the seeds have germinated, pupils validate or not the assumptions and can classify again what is a seed and what is not.

They realize a poster with 2 lines «seed» / «not seed» and seeds and objects are glued.

Step 4: Observation of seedling growth

The teacher takes out a seedling so pupils can observe the different parts of the plant: roots, stem, leaves.

Photos are taken at different moments and children put them in order.

Extension ideas

Discover the gardening tools.

Plant bulbs in flowerboxes.

Plant potatoes in the school garden.

Plant vegetable seeds.

Make a mosaic with different seeds.

Catch seeds with clips and sort them out.



1. Planting, Composting and Respecting our Environment

Introduction

Life in modern urban centers has deprived children of the skills of cultivating and caring for plants that were once taken for granted. Many times, in fact, children seem to be unaware of which plant a specific fruit, which they eat, comes from, they mostly find a variety of fruit, vegetables, herbs and nuts on supermarket shelves, detached from the natural growing environment and the harvesting process. Apart from that, they have little if no knowledge at all about organic cultivating methods using natural fertilizers such as compost. In an era of dumping tons of waste in landfills, raising student awareness on organic matter recycling (such as composting) is essential.

Students' age: from 6 years old

Objectives:

The goals of this program are for students:

- To identify key plant species in their area and the fruit they bear.
- To plant and take care of some seasonal plants using simple tools or their hands.
- To list the benefits of composting as a natural recycling process and as a natural fertilizer
- To distinguish the products that are allowed from those that cannot be included in the composting process.
- To develop a sense of responsibility, patience and perseverance through the process of growing plants.
- To collaborate and work in groups, each of which will take care of a different plant.



1. Planting, Composting and Respecting our Environment

You will need

Shovels, seeds or seedlings, colored pictures of plants or fruit, compost bin (or any storage container with small holes on the sides), small notebooks or diaries, papers, pencils

Activity

Step 1: Visit to a botanical park and treasure hunt.

Students will visit the Botanical Park and Gardens of Crete in the prefecture of Chania. They will be divided into groups of 4-5, preferably mixed age groups. Each group will be provided with 5 colored photos of plants and fruit that can be found in Crete and the Mediterranean in general. The groups will tour the Botanical Park, observe the flora and search for the 5 “treasures”. The treasures are the 5 plants that correspond to the colored photos of each group. Students will be asked to write, on the back of the photo, the name of the plant as it appears on the signs of the botanical park and the category in which it belongs to (trees, shrubs, grass, evergreen, deciduous, aromatic, etc.) Once the treasure hunt is over, the groups will present their findings to the rest of the groups.



1. Planting, Composting and Respecting our Environment

Step 2: Cultivation of seasonal plants.

Students will be divided once again in groups, they will dig holes in the school garden and plant (always with the guidance of their teachers) the seeds or seedlings of various vegetables such as cherry tomatoes, peppers, eggplants, cucumbers, zucchini etc. They can also plant potatoes and strawberries. Each group will undertake the watering and care of its plants. Also, each week the students will be asked to observe and record the changes they notice the plant undergoes in their “Plant Diary”. The observations that will be recorded may regard the size and thickness, the color of the leaves; spots or other signs of diseases on the leaves, the size, the shape, the color of the fruit, etc.



Step 3: Informing and raising awareness about the importance of composting

An executive of the Mechanical Recycling and Composting Factory of Chania will visit our school and inform us about the process and the benefits of composting. Students will then engage in an experiential action by placing various materials that they have brought from home in the compost bin and discuss which ones are suitable for composting and which ones are not.

1. Planting, Composting and Respecting our Environment

Finally, the students, divided into groups, will undertake making a poster with one of the following topics: “Materials that I am allowed to place in the compost”, “Materials that are not composted”, “The benefits of composting”. Instead of a poster, a team will design the steps to build a compost bin at school, based on information they were provided as well as the research they conducted on the internet..



Extension ideas

It would be ideal if students could follow the steps, they have designed to make their own compost bin and their own organic/ natural fertilizer to be used in the school garden. Also, the cultivation of a school vegetable garden can have a positive effect on the adoption of healthy eating habits. Students could discuss the importance of vegetables in their daily diet and the importance that other plants in our school garden have on human life. Also, the 5th and 6th graders could collect the products cultivated in the school garden and organize and create delicious snacks for all the students of the school.



June

Month dedicated to the CLIMATE CHANGE Awareness - (5/6: World environment day, 17/6: World Day to Combat Desertification and Drought) Why is our planet getting hotter? What happens if Earth gets 2°C warmer? What is it going to happen with the climate? Which are the vital signs of our planet?

Desertification is caused primarily by human activities and climatic variations. It does not refer to the expansion of existing deserts. It occurs because dry land ecosystems, which cover over one third of the world's land area, are extremely vulnerable to overexploitation and inappropriate land use. Poverty, political instability, deforestation, overgrazing and bad irrigation practices can all undermine the productivity of the land.

Source: <https://www.un.org/en/observances/desertification-day>

1. Climate change is real! Act now!

Introduction

Newscasts are flooded with reports of melting ice at the Earth's poles, unusually high temperatures for the season, and more frequent extreme weather events such as heat waves, droughts and floods. According to the Intergovernmental Panel on Climate Change (<https://www.ipcc.ch>), over the past 150 years, the average temperature has risen by almost 0.8°C worldwide and by almost 1°C in Europe. Scientists warn us about how many plants and animals are in danger of extinction in the event that the average temperature on the earth rises even more. However, climate change is not a future threat. It is already happening. An example of an extreme phenomenon linked to climate change is the recent fires that have hit Australia and destroyed almost one-fifth of its

forests. Such events have not gone unnoticed by students and can be used as an occasion for reflection on this issue. Essentially, climate change affects us all.



Fires in Southern Canberra, Australia, "Black Summer" 2020-21 (Wikipedia)

Students' age: from 8 years old

Objectives:

- To record the consequences of climate change.
- To propose measures for the protection of the atmosphere, land, water.
- To suggest ways of intervening in the immediate social environment (family, friend group, school, neighborhood, local government, etc.)
- To address problems that may be responsible for climate change.
- To develop a sense of personal responsibility for the state and future of the planet

1. Climate change is real! Act now!

You will need

Papers, markers, magazines, newspapers

Activity

Step 1: Climate change research. Students will look for titles and articles on the environment in print or online newspapers. They should cut out or mark any title or passage that catches their attention. They should then discuss the results of their research on the state of our planet and the signs of climate change. We encourage students to expand the discussion on the effects of climate change on human health, society, the economy, wildlife.

Step 2. Create a poster. With the information gathered by the students, they create posters about the effects of climate change. On the posters, the students can stick titles of newspaper articles and captions, pictures from magazines, write their own short text or poem about climate change as well as enrich it with their own drawings.



1. Climate change is real! Act now!

Activity

Step 3: Recording suggestions and solutions to the problem

Students use the brainstorming method to record their ideas about possible solutions to problems related to the Greenhouse Effect, the “Ozone Hole”, the pollution of the water, air, and land and climate change in general. They then should plan an intervention in groups, and plan either individually or collectively as a classroom or school.

They visit the local Fire Department and they learn about their mission on protecting the natural environment.



Extension ideas

This program could be continued with the implementation of the proposals-measures of solutions that the students have thought of, eg. with a visit or letter to the mayor, a waste disposal campaign, informing the local community about the problems the students identified and their possible solutions, as well as and their daily responsible individual choices.