



*There's Rosemary, that's for remembrance:  
Pray, love, remember: and there is pansies, that's  
for thoughts. ...There's fennel for you, and columbines....*

William Shakespeare, *Hamlet*, Act IV, Sc. 3

Plants, herbs and flowers preserved and cared about by experts in botanical gardens. Long-time ecosystems of extraordinary sustainability and biodiversity

### **Premise**

This card envisages a large public of learners encompassing young and adult learners as it can be adjusted to their needs, skills and abilities at all levels.

As it is, this card is mostly conceived for students of the Middle, High schools.

However, after a visit to the Botanical Garden where they can closely observe plants and flowers, pre-primary and primary pupils can build their own 'virtual' garden by drawing, sketching and/or cutting images of plants, flowers, etc. from pictures, magazines, etc. and sticking them on a collective floor panel or inside a large individual box or similar along with explanatory captions. Should there be the possibility, they can plant some flowers and/or herbs in a plot of earth owned by the school or place seeds of flowers, kitchen plants, etc. into some vases to make up a little (vegetable) garden complete with information tags. Primaries can make up garden/flower/plant coding structures in the colours of the seasons; they can learn educational flowers songs and nursery rhymes

### **Learners**

All level of learners with age-appropriate adjustments (see above)

### **Subjects**

English, Sciences, ICT, Italian (where advisable)

### **Objectives**

- promoting the knowledge of local and global realities as regards botanical gardens
- being aware of their importance and their relationship processes consistent with sustainability, biodiversity, etc.
- learning about some chosen plants and their characteristics
- improving scientific knowledge, English language and literature
- interaction among subjects and inclusion

## Competences

- developing an attitude of interest and curiosity about cultural heritage
- reinforcing the use of appropriate languages used in different contexts for different purposes
- learning to learn
- enhancing creativity, critical thinking, communication, an attitude to share and collaborate

## Tools and materials

Online and printed texts, school materials, photo/video camera, technological devices

## Duration

About two months to complete all the steps

## Development

- brainstorming session among teachers to establish tasks, roles, time schedule, etc.
- explanation to the class of the reasons and targets of the project and expected educational achievements

Warm-up introduction to elicit general information and raise motivation, curiosity and interest

- to learn about botanical garden: the scientific thought behind their existence; their relevant cultural contribution to science and environmental awareness throughout the centuries
- reflection on such words as ecosystem, sustainability and biodiversity and on how botanical gardens have fulfilled all of them. In what way? By what means?
- to read, discuss and understand the requirements inherent in the goals concerning the environmental safeguard of the 2030 UN agenda
- to investigate the characteristics of some important Italian and foreign botanical gardens starting from the local one
- to write an account (or fill in a form) of the main elements and information acquired from the above research. To create maps and graphs pointing out the main characteristics of each garden considered (especially addressed to the students of the Middle school)
- to learn about some of the activities/actions carried out in a botanical garden (scientific, logistic, organizational, managerial, etc.) and reflect on today's role of such institutions
- trip to the Botanical Garden to visit its many sectors including the Shakespearean pathways to understand its structure, organization and cultural scope
- activities of orienteering treasure hunt, sensorial experience especially addressed to Middle school students (and primaries)
- writing an essay with personal comments on what has been seen and understood about the

Garden's structure, organization and cultural evidence. Experiments of creative writing. The Middle school students will provide some short paragraphs accompanied by pictures or they can be given exercises like cloze tests, reading/listening comprehension, questions, fill in the blanks, find the missing words, picture dictations, etc.

-to consider some of the plants of the Shakespearean pathways and their inspirational role as related to the lines reported on the tags (Middle school students under the guidance of their teacher/s)

-to study and reflect on the hows and whys of Shakespeare's connection between plants, feelings and circumstances (High school students)

-to write an account with details about the above passages and present it to the class

-to select some specific 'Shakespearean' plants in order to research, study and analyse their characteristics, origin, etc. from a scientific/botanical point of view

-to create algorithms, flow charts, graphs and/or tables to describe them and their specific features

-to present the scientific outcomes to the class supported by explanations with the help of videos and images

-to collect all the material to create an e-book subdivided into. Botanical Gardens (sustainability, biodiversity, etc.), Scientific outcomes (concerning the plants studied), Plants in the Shakespearean works

-Middle school students: assembling of the materials provided completed with personal reflections and drawings

-to upload everything on the school website

## Products

E-book *A World of Plants* completed with a bibliography and a presentation from the teachers of each subject concerned with an account of the motivations and of the methodological pathways exploited

## Evaluation and validation

See introduction