

*All the perfumes of Arabia will not sweeten this little hand...*

William Shakespeare, *Macbeth* (Act V, Sc. 1)

Plants, flowers, herbs are part of our daily routine in many forms and ways...

### **Premise**

The project is based on an exploration of plants: their origin, function, indispensable beneficial effects on the life of all living creatures and of the planet; their utilization in so many sectors of human life

### **Learners**

High school students (last years) and adult learners

### **Subjects**

English, Sciences (Natural Science and Chemistry), ICT

### **Objectives**

-to learn some scientific data and details about the essential role of the plants, their origins and different species

-to be aware of the role and functions of the plants as regards biodiversity, sustainability and health with reference to the UN 17 Sustainable Development Goals

-to use scientific material and specifics to outline:

1. the origin of plants and life on our planet; role, species
2. their contribution to countless human sectors: subsistence, health, heating, clothing, building, cosmetics (reference to Lady Macbeth's line), etc.
3. man's irresponsible conduct and consequences. Measures and counteractions

-to enhance both scientific thinking and civic awareness

-to employ English as a language of communication in all its forms

-to favour subject interaction and inclusion

## Competences

- to research and learn scientific data, information and categorize them
- to learn about sustainability, biodiversity and support ethical behaviour
- to use English to communicate, describe and research
- to share and exchange information and opinions
- to develop and reinforce both scientific thinking and civic responsibility
- to be aware of the mental processes occurring when dealing with different cultural/ educational approaches and issues

## Tools and materials

Technological devices, printed and online texts to research data and information

## Duration

About two/three months

## Development

Brainstorming session among teachers to establish tasks, activities. time schedule, etc.

Explanation about the features of the project, the activities that will be developed, the goal/ls to be reached, the tools and materials to be used

Full reading of the UN SDGs agenda 2030 and oral comment and debate on each point, more specifically on the ones concerning environment, climate, sustainability, etc.

Brief written account to point out the issues related to the goals directly connected to environmental questions

Research and in-depth study of the subjects pointed out at no. 1 and 2 of the project objectives

Development of tables and graphs describing the study results

Visit to the Botanical Garden, an authentic example of a long-established source for natural learning; a reliable system of preservation and durability. Considerations on the role of Botanical Gardens as hubs of biodiversity, sustainability and cultural heritage

Reflection and written account on the importance of botanical gardens and of the modern centres for biodiversity, seed banks, ecosystem research, etc.

Subdivision into class groups to learn and reflect on the extent of peoples' cultural heritage depending on plants; their role in the formation and definition of natural and urban territories, landscapes, lifestyles, behaviours, ecosystems, biodiversity, etc.

Addition 1: learning focus on Lady Macbeth's mention of the 'perfumes of Arabia' and the circumstances for her words. Reading of the whole passage; zooming in and outlining a portrait of Lady Macbeth's highlighting her transformation throughout the development of the story (written account and oral presentation).

Addition 2: specific in-depth study on the use of plants in cosmetics nature and chemistry Representation of the outcomes by means of tables and graphs. Devising (digital) clouds of the names selected by subject

Each student or group focuses on one particular sector of the research and relates about it showing data and supplying facts and details. Class debate

Writing an essay about: *The Role of Plants in defining Cultures and Territories*

Addition 3: the learners express their opinions about the protection of the environment: what they reproach to past and present generations; what can be claimed and actions taken to defend their right to a safe life on a safe planet. This can be done as a written account or, to simplify, in the form of a proper "good and bad" list

Assemblage of all documents produced to create an e-book to be uploaded on the school website completed with an accurate bibliography and a presentation from the teachers of each subject concerned with an account of the motivations and of the methodological pathways exploited

## **Products**

E-book *Plants and Culture*

## **Evaluation and assessment**

See introduction