

*For so work the honey-bees,
creatures that by a rule in nature teach
the act of order to a peopled kingdom*

William Shakespeare, *Henry V* - Act. 1, Sc. 2

A world of bees, plants and water. A hope for the future

Premise

The project is about the protection and preservation of the three elements mentioned in the subtitle and on how to enact behaviours that encourage and support their existence.

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

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

The subject can be taught to pre-primary and primary pupils by employing methods based on observation, images, specific texts, videos and so on in order to enhance their interest, curiosity and knowledge of the matter. To this purpose there is a large variety of tools and devices available online providing affordable, engaging activities, workshops, experiments and exercises

Learners

All levels of learners with age-appropriate adjustments

Subjects

English, Sciences, (Botany, Chemistry) ICT, Italian (where advisable)

Objectives

- to study and understand how bees, plants and water are interconnected
- to become aware how everything is interconnected on our planet and why each natural system and habitat must be protected
- to understand the concepts of biodiversity, sustainability, cultural difference and share their values at any time and in any effective way



- to develop an attitude of contrast to pollution, exploitation, deforestation, discrimination, injustice, etc.
- to develop a respectful attitude towards nature; be ethically and actively involved in the vicissitudes concerning our planet and its creatures
- to use English to communicate and technology to create coding platforms
- to favour inclusion and interaction between subjects and methodologies

Competences

- to learn and understand scientific information, concepts and data
- to be able to apply specific methodologies and scientific/mathematical principles and processes in the context involved
- to use technological and scientific tools in a conscious and productive way to achieve goals
- to work collaboratively engaging effectively with others and show curiosity for other cultures
- to develop critical thinking, creative and problem solving skills
- learning to learn
- to encourage the use of a foreign language, artistic/digital design, and platforms

Tools and materials

Online and printed texts, school materials, technological devices, apps and platforms

Duration

About two/three months according to the steps taken into account

Development

Brainstorming meeting among teachers to develop a plan of interventions by employing a cross-curricular methodology

Explanation to the class of the activities, targets and achievements of the project

Warm-up to elicit preliminary information about the subject and enhance interest, curiosity

High school students

In-depth study about bees, their role as related to the pollination of plants, food production, biodiversity, etc.

In-depth study about plants, the origin of the vegetable world, categorization of plants, effects on climate, etc.

In-depth study on water, its characteristics, beneficial effects, classification and related issues

All the above studies will be synthesised by means of tables, charts, coding, graphs, etc. on a specific platform and the creation of an appropriate app

The outcomes of the whole activity will be object of presentation of each group of students to the class

All of this will pave the way to a visit to the Botanical Garden as an acknowledged place of biodiversity, sustainability, environmental balance and exchange

A brief history of the botanical gardens must be introduced along with a survey on their existence and development due to man's sapience, foresight and wisdom.

Reflection on the measures to be taken to promote responsible actions of safeguard of the three elements objects of the study

Collection of the materials produced concerning the scientific aspects of the survey

Investigation on Shakespeare's love and knowledge of the natural environment (a walk along the Shakespearean pathways of the Botanical Garden) and on his finding in nature the elements apt to enrich his poetical vein with imagery and details

Research, selection and analysis of some passages relevant to the study of the 'botanical Shakespeare' starting from the quote in the title

Written essay to comment on the relationship between poetry and nature in Shakespeare's works

Collection of the material related to Shakespeare in an e-book to be uploaded on the school website

Middle school students

They will follow the same pathway as regards the scientific aspect confining activities and performance to their skill level especially as regards the use of technological programmes and the study of Shakespeare's passages. The latter can be accurately

planned by the teacher and proposed in different way, for instance by reading the Lambs' *Tales from Shakespeare*, followed by the drafting of short paragraphs; providing listening/grammar/ comprehension exercises like cloze tests, find the right word, fill in the blanks, preparing questionnaires and experiments of creative writing, etc. (search the web for more inputs)

Products

Platform/app including the outcomes of the scientific studies

E-book *William Shakespeare's Poetry and the Natural World*

Evaluation and validation

See introduction