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Integrated European
Cultural Heritage for VET

The Noah's Ark

The world's largest collection of crop diversity



Image caption: Cover image of the official website of Svalbard Global Seed Vault. On the website you can find information about the history of the bank, the structure of the site and an introduction to the operations and management of the Seed Vault; videos and photos also available on [Flickr](#).



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General overview

The key words on which we have worked in outlining this proposal are two: agriculture and biodiversity; when the concept of "transmission of cultural heritage" was added to these two initial words as a commitment and duty of all towards the future, the following words could only be [Svalbard Global Seed Vault](#): the rock-cut vault of the Svalbard islands in which the human agricultural heritage is protected from earthquakes, wars, climate changes, genetic and biological alterations.

The idea of having a global security storage facility in Svalbard, to house duplicate seeds stored in gene banks around the world, began to be discussed in the 1980s. The bank is now funded and managed by the Norwegian government and is supported by the most important world institutions (including FAO). The vault was inaugurated on 26 February 2008 in the presence of the Norwegian Prime Minister, the President of the European Union, the Director-General of the United Nations Food and Agriculture Organization (FAO) of the United Nations and the Nobel Prize for peace, Wangari Maathai. To date, the vault preserves about 100,000 seeds from around the world. The exercise guides students through the discovery of the vault and the study of biodiversity, as a crucial element of humanity's cultural heritage.

In particular, the exercise can be enhanced in the context of cooking classes, with a view to enhancing biodiversity in the food sector. In addition, as the Seed Vault contains seeds from all over the world, the exercise can be valorised to study geography, starting from the exploration of the countries that contributed to the creation of the Vault. From a wider perspective the exercise can be presented as a point of reference for a debate on climate changes, as well as for a reflection on genetic and biological alterations.

The exercise presents an activity in detail and outlines a second one that teachers and trainers will be able to finalize following the proposed model.



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The Noak's ark of plant diversity

Activity overview

The activity asks students to explore the Svalbard Arctic Global Seed Vault by analyzing the materials presented on the bank's official website and on external resources; asks them to identify the Vault role and mission in a global perspective, and to create, as a final product, a descriptive report to present, during a conference on the subject, to the local farmers' associations.

The activity has been designed for students of the HORECA sector.

Final product

- Presentation report

Specific knowledge

- Function and mission of the Svalbard Arctic Global Seed Vault

Level of difficulty

The exercise, as a whole, has a medium-low level of difficulty as it presupposes a basic entry level for the skills and knowledges on which it works:

- Multilingual competence
- Literacy
- Citizenship competence
- Digital competence
- Cultural awareness and expression

Descriptive activity sheet

Stage 1

Description

Present the exercise to the class, introducing the above mentioned website and the video [“Exploring the Arctic's Global Seed Vault”](#). The video has English subtitles and text transcription. After watching the video, divide the class into small groups and ask



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your students to identify the key words in the video and the basic concepts that are expressed.

By way of example, we will list the keywords or phrases we have selected:

- This is a special place;
- some journalists call it Noah's Ark;
- this is a safe place;
- the bank contains 13,000 years of agricultural history;
- This is a place where international conflicts are cancelled.

As an additional exercise, you can invite the students to translate the texts into their own language.

Objectives

- Increase students' ability to understand spoken messages, to read and understand texts in English (Multilingual competence).
- Increase students' ability to distinguish and use different types of sources, to search for, collect and process information (Literacy)
- Increase students' knowledge of basic concepts and phenomena relating to individuals, groups, work organisations, society, economy and culture. (Citizenship competence)

Key competences

- Multilingual competence
- Literacy
- Citizenship competence

Resources

- Teacher contact person for the activity
- The group of teachers we suggest is also composed of: teachers of the linguistic axis; teacher of the scientific axis.
- Equipment: Internet connection, computer.

Duration

- 30 minutes - presentation of the Svalbard Arctic Global Seed Vault video and website



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- 30 minutes - finding key messages from the video

Stage 2

Description

This phase is for small groups.

Ask your students to reflect on the keywords and reference concepts they have selected by briefly explaining in writing the reasons for their choice. After having done this work, support them in creating a presentation, on digital support, valuing the elements they have identified as priorities. Remind your students that the final product is intended to be shared and/or presented to local and regional farmers and that the needs and interests of the target audience should be taken into consideration during the design phase of the presentation. The product can be made with different tools: Google Slide, [Canva](#), PowerPoint or other, in relation to the students' previous skills.

Objectives

- Increase the students' skills to communicate in writing in a variety of situations and to monitor and adapt their own communication to the requirements of the situation (Literacy).
- Increase the students' ability to create digital content. (Digital competence).
- Increase the students' understanding of how digital technologies can support communication, creativity and innovation (Digital competence).

Key competences

- Literacy
- Digital competence

Resources

- Teacher contact person for the activity
- The group of teachers we suggest is also composed of: teachers of the linguistic axis; ICT technician
- Equipment: pen and paper; Internet connection, computer.

Duration

- 60 minutes - short commentary text on the selected concepts
- 120 minutes - processing a presentation on digital media



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Stage 3

Description

This phase is for the whole class.

In collaboration with your students, select one of the created presentations and contact representatives of local or regional farmers' associations to introduce them to the final product. The activity includes the drafting of a short invitation text, contacts by email and/or telephone and, if the invitation is accepted, the planning of a small event.

The selection of the presentation that will be used in the meeting must be made collectively and in relation to the criteria suggested in the product evaluation sheet.

Objectives

- Increase students' ability to effectively communicate and negotiate with others, and to cope with uncertainty, ambiguity and risk as part of making informed decisions is essential (Entrepreneurship competence).
- Increase students' skills to communicate both orally and in writing in a variety of situations and to monitor and adapt their own communication to the requirements of the situation. (Literacy).
- Increase students' knowing that there are different contexts and opportunities for turning ideas into action in personal, social and professional activities, and an understanding of how these arise (Entrepreneurship competence).

Key competences

- Entrepreneurship competence
- Literacy

Resources

- Teacher contact person for the activity
- Equipment: Internet connection, computer, an email account; telephone.

Duration

- The required time can't be foreseen as it depends on external elements.



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Seeds' identity card

Activity overview

The activity asks the students to explore seeds and plants from a botanical point of view, to collect data and to realize, as a final product, an identity card, graphically set, of some of the selected plants.

As a point of reference, the activity proposes the exploration of the database contained in the Search Seed Portal, a tool through which students can find detailed information on the 100,000 different types of seeds stored in the Global Seed Vault, based on parameters such as: species, institutes from which they come, countries of origin, etc.

The suggested steps of the activity are the following:

1. Ask your students to make a short desk research to understand how plants are classified scientifically. The activity should produce a short glossary of the following words: Taxonomy; Species; Genus; Scientific name; Vernacular name. This first phase of the activity is preliminary to the following one. If your students have specific previous knowledge on this issue, you can skip the phase.
2. Guide your students to explore the [Seed Portal](#) and find out the number of seeds [from each continent](#). The [Seed Portal](#) contains information about seed holdings in the Global Seed Vault under the following elements: [Seed samples](#); [Taxon names](#); [Species](#); [Genus](#); [Country of origin](#); [Continent of origin](#); [Depositor institutes](#); [Depositor and genus](#); [Depositor, date and crop](#); [Seed deposit events](#). The research is outlined as a starting point but, in line to the previous knowledge of your students, it is possible to make a more or less complex research.
3. Guide your students to select their own country or a country they would investigate and find out which seeds are stored in the bank under the selected country's name.
4. Ask your students to choose one plant and collect data to make the draft of an informative card of it under the following points: Botanic identity; History; Nutritional values.
5. Guide your students in the implementation of the graphic identity cards of the selected plants using the skills already acquired in carrying out similar activities.



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Examples

A graphical example

FENNEL

ORIGINAL NAME:
FOENICULUM
VULGARIS
FAMILY: APIACEAE



ENERGY

KCAL 31

Fennel is the vegetable with a very low caloric index 31 calories per 100 grammes, promotes digestion by fighting the formation of intestinal gas, is rich in vitamin A and C, sodium, calcium, phosphorus and above all potassium beneficial for the heart and system nervous.

Image caption: data from [USDA - United States Department of Agriculture Agricultural Research Service](https://www.usda.gov/)

Resources

1. To read more on Wangari Maathai (1940-2011) as founder of the Green Belt Movement and the 2004 Nobel Peace Prize Laureate.
<https://www.greenbeltmovement.org/wangari-maathai>
2. The Global Crop Diversity Trust was established in October 2004 as an independent organization under international law. This status was conferred on it through the signing of an Establishment Agreement by seven states from five of the regions referred to in the basic texts of the United Nations Food and



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Agriculture Organization. The Crop Trust is recognized as an essential element of the funding strategy of the [International Treaty on Plant Genetic Resources for Food and Agriculture](#), as established in a formal [Relationship Agreement](#) signed by the Crop Trust and the Governing Body of the Plant Treaty in 2006. To deepen: <https://www.croptrust.org/>