



YOUTH FOR EMBLEMATIC MOUNTAINS Y4EMM

ONE DAY AS A BEE

Reminder of the Y4EMM project aim and objective of the pedagogical activity/tool Common for all the tools

The Youth4EmblematicMountains project was launched to increase awareness about cultural and environmental heritage and prepare youth to be the future key players of the green transition, since they play a key role in achieving this goal. Moreover, schools can be powerful in raising awareness of natural and cultural environments and the different challenges that must be addressed. Learning through concrete examples from their local area can be a way to reach young people and encourage them to remain in their areas, choosing green careers, and proactively protecting natural and cultural heritage. In this regard, teachers have a key role in order to introduce these topics in their classrooms. For this reason, the project aims to train teachers of local territories to provide them with strategies and tools to work on natural and cultural heritage as well as how to orient their students towards eco-friendly jobs. The following pedagogical activity/tool aims to be directly used by teachers/trainers to help them to address the previous mentioned topics with their pupils, in class and/or during field visits.

Introduction/General overview of the pedagogical activity/tool

Name of the tool: One day as a bee

Main topic: The main topic is environment heritage. Learn to live from bees!

Target/Ages: It's possible to adapt the tool from 6 to 10

Category of tool: Role play and debate

Description/content of the pedagogical activity/tool

The quality of our life, and our future, depends on the many services provided for free from nature. Pollination is one of these invisible services, but invaluable. Consequently, it is very worrying to learn that some of our best pollinators are a risk. If we do not intervene on the reasons to the basis of the decline of wild and non-wild pollinators we act urgently to stop it, us and our future generations will pay a price really tall.

This tool wants to raise awareness and knowledge of bees and the biological and ecological characteristics of the species. Pollinators play a key role in nature and for humanity and are fundamental for the preservation of our existence and our economies. Despite the importance they play for the life of the planet, pollinators unfortunately are in a worrying state of decline and many species are critically endangered

This tool helps to talk about endangered species and conservation interventions, through play and fun. In this role playing game called “One day as bee” each player lives every single moment of the bee family’s life. In this complex community there is consistent genetic variability which involves a different sensitivity to external motivation..

Main steps and duration:

- **Pre-activity:** At school, thanks to the in-depth manual which you find attached, it will be possible to learn about the world of bees and the importance of their role in the existence of the world. This can be done with the teacher or the educator or by both figures, with a joint work.

Duration 4h divided in 2 work sessions

-**During the activity:** Children will arrive in a place where it is possible to take a walk to discover honey plants and pollinators and maybe visit some beehives. At the beginning of the day the educator/guide or the teacher introduces the activities. After the first moment of discovery, children are divided into groups of 5-6 members, simulating a small bee family. Each one is assigned or chooses its role and the educator invites them to interact with each other, using the material available, especially cards with instructions and information. The educator/guide proposes different situations:

For example

-the life of the Great Queen, there is one for each hive and it is the only individual responsible for reproduction, therefore it is the mother of all bees in the colony.

It stands out among the others for its more voluminous and longer abdomen. In fact, it has the body size almost double that of the worker.

-the biological cycle and the life of worker bees: The worker bees are born from small eggs that the queen bee deposits in the cells. From this moment on, three transformations take place, called metamorphoses: in the first the eggs become "larvae" and appear as small white caterpillars, in the second the larvae transform into "pupae" and

Main steps and duration:

- the birth of a new queen
- the dance of bees to find a new home. The bee dance was first performed and described by the German scientist Karl Von Frisch who, thanks to this discovery, won the Nobel Prize in 1973. In what consisted? Von Frisch understood that bees are among the few existing beings (including man) capable of transferring information between one individual and another through a real own shared code: a language.
- the nuptial flight and the birth of a new family
- the career of workers bees
- the life of the drones. They are the males of the family, their task is to fertilize the queens, although recent studies show that they contribute to producing the heat necessary for the development of the brood and that participates in the trophylaxis (exchange of food inside the hive between one insect and another). Drones are bred around the same time as the new queens are bred.
- the construction of the honeycomb etc

Duration : All the activity may take 4 h

- **Post-activity**: At school or at the end of the outdoor day, discuss the importance of the sociality of bees, their mutual help and try to give young people ideas to bring this system back to everyday life, and the importance of biodiversity preservation.

Learning strategy/objectives

Learning objectives

- 1 Take the floor in communicative exchanges asking questions, giving replying and providing explanations and examples. In discussion grasp the positions expressed by comrades expressing their own opinion.
- 2 Arrange a speech on a theme dealt with a short speech
- 3 Observe, describe and compare phenomena natural and artificial according to the criteria of scientific method and individuate in the observation of concrete experiences some scientific fundamental concepts
- 4 Continue observation and the interpretations of environmental transformations, including global ones, in especially those consequent to the action modifier of man
- 5 Acquire the concept of the ecosystem and learn to describe the peculiar characteristics.

Learning strategy/objectives

Teaching strategies

1 To be SMART

2 Prepare the initial lessons well, to provide the students with all the information necessary for carrying out the subsequent activities

3 Remember the importance of a verification phase, done in the way you see fit, but which allows you to understand if the activity has worked

Learning strategy/objectives

Teaching points (optional)

Remind children of the basic rules of an outdoor activity, such as silence while walking, not picking flowers, etc. And what to bring with you and what not to bring, how to collect the waste produced etc.

Evaluation/assessment

Choose evaluation methods that are smart. For example, creating a video product in the classroom with the photographs taken could be something engaging that remains impressed in the minds of the students and allows the teacher to evaluate the effectiveness of the activities and their satisfaction.

Practical information to launch and led the activity

Educational material needed

- in-depth material on bees
- cards with the characters to be interpreted during the role-playing game
- pencils and paper for taking notes
- camera to capture the most significant moments
- a great desire for discovery

Practical information to launch and led the activity



One
day as
a bee

Learn to live from bees!



THE GREAT QUEEN

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Practical information to launch and led the activity

Place of the activity

The first part of the activity can take place in the classroom. The second will have to be carried out outdoors, for example in an area dedicated to bees, or even in a garden or in a public park if you do not have the opportunity to move.

Logistical information to organize the activity

Comfortable clothing is recommended for outdoor activities. Long pants and sneakers, a hat and some sunscreen. A backpack with water and a snack. In case you manage to go and visit a bee park white clothing is recommended

Size of the group and number and status of the accompanying adults

The recommended groups for outdoor activities are always of max 20 students per 1 guide or educator with the n 2 teachers .



Other useful information/links:

Information for the in depth material in www.ceailbosso.com phone number 085 9808009 or cea@ilbosso.com