

BUILDING ECOSYSTEMS

Subject - Biology

Topic – The ecosystems

Age of students – 13-14

Number of students - 32

Prior knowledge – basic knowledge about the environment

Objectives: At the end of the module the students will be able to:

- distinguish between the different types of ecosystems
- recognise the particularities of the different ecosystems

Opportunities

- to collaborate and cooperate
- to experience nature in a different way

Resources – textbook, wikipedia, cardboard boxes, colored paper, play-doh, crepe-paper, watercolors, crayons, glue

Time frame – 5 lessons (50 minutes/lesson)

Arts involved – drawing, modeling

Methods of work – group work

Procedure / steps

1. The teacher presents the theoretical notions about the ecosystem as an organizational form of the living world and about the structural and functional unity between a biotope and a biocenosis.
2. The students are then divided into 8 groups and each group has to build a diorama of a certain type of ecosystem that can be found in Romania: broadleaf forest, coniferous forest, the cave, the plane, the Black Sea, the lake, the river, the orchard (an ecosystem changed by the interference of the humans). First, each group has to study the traits of their ecosystem and then to decide how to create it, to design the diorama they want to build based on the characteristics of the ecosystem.



3. Then the groups start working on their dioramas paying attention to all the features that they have to include.









4. In the final presentation of the dioramas the students prepare a presentation of their ecosystems, including a PowerPoint and a soundtrack consisting of the specific natural sounds that can be heard in the ecosystems they have recreated





Evaluation summary and comments about how the module went

The students were very involved in the module. They enjoyed the freedom of deciding how to create their own dioramas and actually designing and building them. By having to research about the ecosystems the knowledge they acquired is very well fixed and by putting into practice what they have researched they feel that this knowledge will not be lost.