

Sustainable gardens in schools in Madrid, Spain

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School grounds provide a perfect opportunity to introduce students to gardening and biodiversity in a practical way. The Project "Sustainable gardens in schools" is establishing sustainable gardens in five centers (three primary schools and two secondary schools) in Madrid, Spain through an educational program that involves teachers, students and technicians.

The aims of the project are:

1. To increase the ecosystem services in the schools improving the landscape, air quality and increasing the number of plants and animal species.
2. To increase the urban biodiversity by planting new plants and providing habitats for wildlife, installing bird feeders, bird boxes and bug hotels.
3. To create an outdoor learning area to study biodiversity and environmental issues.

4. To get students actively involved in nature conservation and to develop effective solutions and best sustainable practices in the schools and cities.

5. To high light the importance of nature in the school grounds and to encourage the care of them and the landscape and the surrounding areas.

6. To improve the quality of life of the educational community.

The project is carrying out a series of workshops and lectures with teachers and students participating that provides them with enough skills to establish a garden in the school grounds from the beginning.

It has been a year long project, following the cronological order that's taken inot account when creating a garden. First, we work on garden design and planning and later in different areas, which in order are soil, water, selection and planting of species and lastly animal biodiversity.



SESSION 1

Planning a sustainable garden

- Critically assess our local environment.
- Reflect on the lack of nature in school playgrounds.
- Reflect on the possibilities that each patio has to be improved upon (irrigation, soil...).
- Decide on the most suitable area to do the planting.
- Understand the needs involved in caring for and maintaining a garden.

S1
Sept-Nov



SESSION 2

The soil an essential resource for life

- Understand the importance of soil for life.
- Understand the soil as an ecosystem in which live many organisms (bacteria, worms etc).
- Understand the ecosystem services of the soil (in the decomposition of organic matter, nitrogen and carbon cycles, nutrients stores for plants, etc).
- Work to understand the factors that define a soil's pH, texture and organic matter.
- Work on improving soils in the chosen areas where the garden will be created.

S2
Nov-Jan



SESSION 3:

Irrigation, water for our garden

- Understand that the reasonable use of water is fundamental for garden sustainability.
- Work in concepts that are related to the canalization of water.
- Work together in the instalation of an irrigation system for the chosen area.

S3
Jan-March

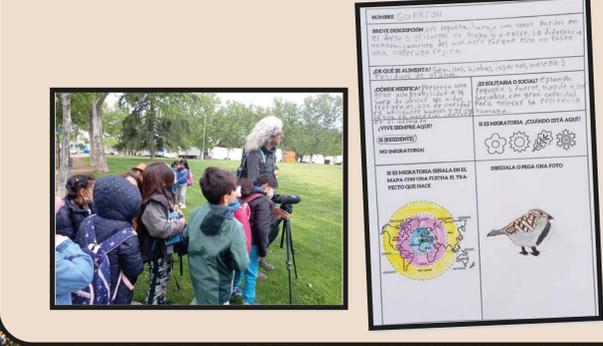


SESSION 4

Mediterranean plants, the main players in our garden

- Describe the importance of using adapted species in our environment for the creation of sustainable green spaces in our garden.
- Work to know some of these species and learn about some key aspects such as phenology, uses, etc.
- Know that some species are good for attracting fauna such as pollinating insects or birds.
- Together create a plan for a garden design in our designated area.
- Work to plant the garden: 2,518 plants of 270 species to create a total of 439.73 m² !!

S4
March-Apr



SESSION 5

Urban fauna. What wild animals inhabit our city?

- Observe and know the birds in the park closest to the school. We identified 14 different species in 5 parks!
- Recognise the importance of birds in our city.
- Learn the importance of our garden for birds in our neighbourhood.
- Learn different ways to help fauna through structures like bird tables, nesting boxes and insect hotels.

S5
May