







The work of this first quarter of the 2024-2025 academic year, in accordance with the objectives encrypted in the project, was focused on **programming** by the team of teachers and teachers of the CEIP of Barouta, in coordination with the company Arenaria.

Throughout this 1st quarter, block 1 of the project presented was developed: CREATION OF MATERIALS AND TEACHING UNITS.

Between September and December, the following tasks were launched:

 Realization of the training and coordination sessions of the cloister of the CEIP of Barouta and with each tutorial in particular, with the company Arenaria for the definition of the general project and the teaching units and activities that will be developed throughout the 2nd and 3rd quarters of the course.

(Annex 1 ARENARIA PROGRAM DOCUMENT)

https://www.ceipdebarouta.gal/axustando-o-programa-de-traballo-do-proxecto-estang_ EU/

• Implementation of the main working natural space: the pond. With the grant obtained from the Paideia Foundation, remodeling/reconstruction works were carried out on the school's pond, ending in December. It's all set to start using the space and developing the project in January.

https://www.ceipdebarouta.gal/xa-temos-novo-estangue-en-barouta/









- Coordinated definition of intervention design:
 - Coordinated preparation of the monthly calendar of workshops.
 Task carried out coordinated between the company and the project coordinator.

(Annex 2 - Monthly CALENDAR of obradoiros)

Organization of the groups and preparation of the activity space.
 Design of the development of the sessions in the Project Space of the school, with the students being the one who moves to the same for the realization of the proposed activities. Combination of use of natural-pond space. Task carried out coordinated between the company and the project coordinator.

(ANNEX 3 - ORGANIZATION GROUPS /SPACES)

 Design of the teaching units for each level and/or cycle: coordination of the company Arenaria with each tutorial according to the Curriculum and needs of the specific grouping. They were held for the same meetings prior study of the curriculum of each level in the subjects related to the tematica to select those objectives and content involved in the project.

(Annex 4 - TEACHING UNITS)

• The design of the Field Journal was started by adjusting it to educational levels. So far it is in this stage of preparation to fit the different levels, formats and budget.

• Design of the Lab-Box with the preparation of the list of resources for the realization of the activities planned in the workshops, both inside (walla and projects) and outside (pond and environment)

(Anexo 5 - LAB-BOX)

- ACTION WITH FAMILIES: The design of a training/information session to be carried out in February with the families of the students is in process. This 1st face-to-face activity, since they are already knowledgeable about the project in other ways, will be focused on understanding the dynamics and awareness of water consumption and use in homes.
- Commencement/September Report (Appendix 6 -

1st PROBLEU Report)



GENERAL PROPOSAL FOR WORKSHOPS AND ACCOMPANIMENT TO THE PROJECT OF A POND/POND ARENARIA COORDINATION - CEIP BAROUTA

INTRODUCTION

Projects framed in the creation of ponds or ponds and, in general, the creation of natural ecosystems allows us to work essential content of education for sustainability: climate change, biodiversity and sustainable exploitation of resources. The idea with this program is to be able to work on various curriculum competencies of various subjects. The constructive process is also very important, as the collaborative creation of a new ecosystem encourages the involvement of the educational community and its sense of attachment.

In addition to being able to use the space as natural laboratories for educational use, ponds are an ideal environment to bring schoolchildren closer to nature. Likewise, the creation of the pond attracts local fauna and flora to this space of the school, so that students have the opportunity to study ecological interactions in situ through observation and exploration.

Our idea would be to be able to work out the following curriculum skills (in this case talking about primary education. In the case of early childhood education, it is worked through interdisciplinarity, and always with cross-cutting content such as teamwork, gender equality, values education...)

- a) Competence in linguistic communication (CCL).
- b) Multilingual competence (PC).
- c) Mathematical competence and proficiency in science, technology and engineering (STEM).
- d) Dixital competence (DC).
- e) Personal, social and learning to learn competence (CPSAA).
- f) Citizen competence (CC).

- g) Entrepreneurial competence (EC).
- h) Competence in cultural awareness and expression (CCEC).

And we will work on the contents of the following subjects:

- a) Natural Sciences.
- b) Social Sciences.
- e) Castellana Language and Literatura.
- f) Foreign language.
- g) English language and literature.
- h) Mathematics.

The general topics to work on this program would be as follows (always open to change for the interest of the school communication):

- A Water how they Appeal: sostibility, Energy, Footprint Ecologically, agriculture and sustainable food, waste, pollution...
- Biodiversity and ecosystems: Flora and fauna, animal relations, trophic chains, evolution, habitats, conservation...
- Agenda 2030 and climate change: SDGs (Sustainable Development Goals), oceanography, oceans, biology, geology, marine pollution, plastics...

Within general topics, many concepts are worked on. Let's leave a glossary of terms below to see the contextualization of the topics to work on:

Agenda 2030, SDG, sustainability, environmental education, environmental awareness, climate change, agriculture and sustainable food, permaculture, water, energy saving, energy efficiency, waste, plastics and microplastics, ecological footprint, health and wellbeing, oceanography, biodiversity, ecosystems, conservation, living things, evolution, planet Earth, experimentation, research, teamwork, scientific method, oceanography, biology, geology, mathematics, physics, Chemistry, microscopy, ICTs, technology...

NOTE: The topics are the same for the entire school but the methodology will ensure that each session is adapted into vocabulary, materials and activities proposed for each level (not done the same work with 3 years as with 12).

Proposed sessions:

- Number of proposed sessions: 3 mornings a month from January 2025 to June. The idea would be to be able to conduct one session a month with each level of education. In this way, we can do manipulative and participatory sessions. We look at three mornings a month dedicated to this project. It also includes developing educational resources to be able to work throughout the month.

Organization and Coordination:

The company Arenaria Coordination will be responsible for the execution of the proposed activities, as well as all the materials to be used.

Human Team.

The staff team that will carry out the activities will have a higher graduate profile in the field of Experimental Sciences with extensive creditable experience in carrying out activities and projects of scientific dissemination and environmental education, with all age groups and even adapted to groups with functional diversity, and title of guides accredited by the National Park M - T Atlantic Islands of Galicia and official degree in free time (Xunta de Galicia).

method.

You will have a completely practical and manipulative approach, through experiments, demonstrations... It will be done in a completely participatory way. Our way of working is to learn by doing and learning by playing. We will use the scientific method in the processes to be carried out, and always supported by teamwork, bibliographic research, epgerimentation, trial and error...

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Annex 2 Monthly CALENDAR of obradoiros

Proxecto Estanque / Probleu

Student body	4th-5th- 6th E.Infantil	1st-2nd- 3rd E.Primary	4th-5th-6th E. Primary
January	27	28	29
February	17	18	19
March	17	18	19
April	7	8	9
May	12	13	14

Spaces: Project classroom/pond/environment









ANNEX 3 - ORGANIZATION GROUPS /SPACES

ORGANIZATION GROUPS AND SPACES / SPACES: PROJECT CLASSROOM / POND / OUTDOORS

JANUARY		
27	Early Childhood Education (3rd-4th-5th)	
28	1st -2nd-3rd Primary Education	
29	4th-6th-5th Primary Education	

FEBRUARY		
17	Early Childhood Education (3rd-4th-5th)	
18	1st -2nd-3rd Primary Education	
19	4th-6th-5th Primary Education	

MARCH		
17	Early Childhood Education (3rd-4th-5th)	
18	1st -2nd-3rd Primary Education	
19	4th-6th-5th Primary Education	

APRIL		
7	Early Childhood Education (3rd-4th-5th)	
8	1st -2nd-3rd Primary Education	
9	4th-6th-5th Primary Education	

MAY		
12	Early Childhood Education (3rd-4th-5th)	
13	1st -2nd-3rd Primary Education	









Annex 4 TEACHING UNITS

INFANT EDUCATION (4th-5th-6th)

THE WATER

Session 1: Water as a source of life/origin.

The content we will be working on in this session will be through the following questions:

- Where does the water come from?
- What importance does it have for life to exist?
- Do living things use water for a living?
- Do animals and vegetables use it in the same way?

Session 2: Water on the planet and characteristics of them:

- The journey of water: contents linked to the water cycle
- What are the properties of water? Experimentation through their states
- Water in an infinite resource? Availability and sustainable uses of water.

BIODIVERSITY

Session 3: Living Beings of the Environment

Session 4: **How we investigate living things in nature** (conservation and awareness)

Session 5: The relationship between water, air and living things. Everything is connected









1st CYCLE Primary Education (1st- 2nd level)

Session 1: Water

- Where does it come from?
- Properties of water
- Water/air/luz_ physical and chemical phenomena ratio

Session 2: Ecosystems

- Types of ecosystems and characteristics
- "Pond" ecosystem

Session 3: Biological Diversity

- "Families of animals and vegetables"
- Living Beings of the Skirt
- Major species of the pond ecosystem

Session 4: Ecology:

- Extinctions
- Invasive.
- Animal strategies and adaptations
- Environmental Conservation and Awareness

Session 5: Biodiversity

- Life, growth, reproduction and life cycles.









3rd LEVEL Primary Education

Session 1: The 5 Kingdoms.

Which they are. Its importance. characteristics. relations.

Emphasis on vegetables and animals and work concretely (or show resources to work with) photosynthesis.

SESSION 2: O Climate Change I.

Climate change. Introduction to the causes and consequences of climate change, and its impact on earth's landscapes. mitigation measures. Relation to biodiversity. Conservation.

SESSION 3: O Climate Change II

Earth and natural disasters. Elements, movements, and dynamics that occur in the universe. The climate and the landscape. Atmospheric phenomena. Take and record data and weather variables.

Session 4: States of Matter I : States of Matter. Changes in

status in the water.

SESSION 5: States of Matter II: Energy, renewable and non-renewable sources. Responsible consumption. Sustainable life.

4th LEVEL Primary Education

Session 1: The importance of water in our lives









SESSION 2: Living beings. Invertebrate-specific session

. . Session 3: Landscapes/ Energy Types.

Session 4: Meteorology.

Session 5: Electricity.

5th LEVEL Primary Education

SESSION 1: Microscopy session.

Observation of different samples, which manipulate and prepare them.

SESSION 2: O Climate Change I.

Climate change. Introduction to the causes and consequences of climate change, and its iimpacto in earth's landscapes. mitigation measures.

SESSION 3: O Climate Change II

Sustainable life, efficient use of water and energy. Conservation and protection of nature.

SESSION 4: Matter and Energy: States of matter, reversible and irreversible changes.

Session 5: Meteorology.

Climate, climatic zones, reexists, maps, climograms.









6th LEVEL Primary Education

Session 1: Water and Its Importance

Coidado da nosa goes around.

Session 2: Natural Resources

Responsible consumption.

Session 3: Metereology

Session 4: Landscapes

Session 5: Electricity









Anexo 5 LAB-BOX

LABORATORY EQUIPMENT

- PLASTIC DROPPER PIPETTES 3 ML 50 UNITS, Graduated.
- TEST TUBES (20-30 UNITS)
- PLASTIC RACK(X2)
- BEAKERS Made of polypropylene. Low shape. With peak and graduation
- o FROM 50 ML
- o 100 ML or
- 250 ML or

500 ML

- o OF 1000 ML
- MATRACES ERLENMEYER:
- o OF 250 ML Borosilicate glass. Narrow neck or

500 ML borosilicate glass. Narrow neck

- SLIDES 76 x 26 mm, 100 units. Not frosted.
- 22x22mm COVERSLIP
- PETRI DISHES Sterile, 90 mm in diameter. Bag of 20 units.
- GRADUATED CYLINDER Polypropylene, hexagonal base.
- MONOCULAR MICROSCOPE FOR STUDENTS. 40X-400 X.
- BINOCULAR MICROSCOPE FOR STUDENTS. 40X- 1000X









- BINOCULAR MAGNIFIER STUDENT 20X-40X.
- MICROSCOPE PREPARATIONS:
 - PLANT HISTOLOGY COLLECTION 24 PREPARATIONS
 - FOSSIL COLLECTION
 - COLLECTION OF MINERALS.









Anexo 6- 1º informs PROBLEU

First coordination meeting of the "Pond Project" within the European Probleu program. The tutors of Infant and Primary Education and the team of the company Arenaria Coordinación came together to define the lines of the project, content and curricular competences involved, themes as well as the times and spaces of execution, methodology and involvement of the educational community in the collaborative creation of the new ecosystem of the center: the pond. With global work and a manipulative, participative and dynamic approach, the scientific method will be used to develop this project at the different levels, adjusting activities and resources to the ages and interests of our students. The training and participation of the educational community will also be a basic pillar: teachers and families will have training sessions in the ABP methodology (project-based learning) that will accompany the development of the project throughout the course.

All underway!

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https://drive.google.com/file/d/1yxP5YqblhWmZ5cgxKSjRJQQI BnDiJcfj/view?usp=sharing





