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The Flying Nest

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Abstract

The [Museum of Natural Sciences of Barcelona \(MCNB\)](#) aims to generate and share knowledge with a desire to create a society that is more informed, connected and responsible towards nature. This goal is achieved through the preservation of collections that are material evidence of the natural heritage, the search for biological and geological diversity and an own educational model that encourages exploration, learning and participation among the wider public.

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With the opening of its new Forum Park headquarters in 2011, the MCNB set out to become an educating museum that would reach to all citizens, regardless of age, origin, condition and level of education. This goal was achieved by developing the museum's own educational method, which proposes a new way of teaching and learning science that goes beyond the simplest transmission of information. The activities created with this methodology have made it possible to work on the basis of questions, stimulating each participant's curiosity and ability to research, reason and discover.

A project born for science

Being an accessible and inclusive museum also means considering the audience made up by younger children. In this regard, in the 2010-11 academic year, the "Born for Science" project was created, a proposal to promote science from early childhood inspired, among other things, by the success of the already existing "Born to read" program, which was started in Catalonia in 2002 from similar European and American experiences.

The purpose of science for children from 0 to 6 y.o.?

On the one hand, the MCNB works on the premise that science must be for everyone, because it is part of our culture, of our lives. If we want to be able to naturally involve people in scientific decisions and make them able to assess their consequences, we must offer them a close contact experience with the scientific world from an early age.

On the other hand, science is a tool for understanding the world, and thus this is a way to work from an early age. We must encourage children's natural curiosity, helping them to make sense of the phenomena of the world, encouraging reasoned intervention about reality, about things that they are experiencing, inviting them to interact, to ask questions, to take on new challenges.

We start with the idea of a powerful and capable girl and boy who live immersed in a certain culture that strives intelligently to understand and give meaning to everything it sees, feels and lives.

The Science Nest

The “Born for Science” project materialized at the museum with a unique and exclusive space for children from 0 to 6 y.o. (called the [“The Science Nest”](#)) and its associated activities. This space was a pioneer experiment, both inside and outside the Catalan territory, in teaching natural sciences at such an early age. The Science Nest occupies a prominent place at the entrance to the museum—a transparent space visible from the lobby with a very careful and thought-out design, made in great detail for its little recipients.

The Science Nest experience is a set of several factors:

—A close environment

The Science Nest has a whole ensemble of real biological and geological materials ready to be manipulated by children of that age. These are natural materials which are suggestive of our immediate environment (they all can be found in Catalonia), with different sensory qualities that can be discovered through the senses. This is precisely the way children get to know what surrounds them.

—Free choice

Children can inspect whichever materials attract them or get their attention the most without any imposition from adults, who must respect their pace and interests.

—Curiosity

The distribution of space and materials is meant to arouse curiosity, interest, and a desire to research and learn. It is intended to help each child to become aware of their own ability to carry out a discovery on the natural environment—a research itinerary meant to value the skills and abilities of each participant.

—Respectful accompaniment

The role of the educator is to accompany, observe and value the children's actions and knowledge. This attitude is based on allowing and stimulating each child to think, act and formulate their own ideas. We are not interested in unique answers, but in enabling the right conditions to generate questions and facilitate peer-to-peer interaction, to stimulate joint research in the process of discovering creatures, to find different ways to solve questions with no obligation to follow predefined itineraries.

—Respect for the decalogue of children's rights:

- The right to touch everything.
- The right to get dirty.
- The right to think with their hands.
- The right to be respected.
- The right to act following their own opinion.
- The right to invest as much time as they want in their actions.
- The right to enjoy their time.
- The right to be wrong.
- The right not to do what we expect them to do.
- The right that older people strive to understand without interfering.

Thus, by offering space, materials and educational support following the philosophy and didactic model of The Science Nest, the museum becomes the rich and stimulating context for children to mobilize to learn. In short, it is the context to become a truly transformative museum.

The Flying Nest. Reaching groups with difficulties to come to the museum



Enric Gracia. Photographer



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The Science Nest offers school activities for boys and girls from 2 to 6 y.o. However, the nursery school community has not been very present at the museum. Conversations held with teachers and the analysis of evaluation surveys have shown us that, although teachers value our offer very positively, the difficulties of school logistics (schedules and travel) and the lack of autonomy of their children make it very complex for a school to plan an outing to attend The Science Nest.

Faced with this facts, the museum decided to approach nursery schools based on a project it had carried out in 2009 to bring the museum's heritage to students at the schools of penitentiary centers in Catalonia through a trunk containing material from zoology collections, the so-called [Travelling Museum](#). And with the same goal of bringing the museum closer to different groups, the [NAT Traveler](#) was born—in this case for children in hospital classrooms.

So, with the financial support of the Barcelona Municipal Institute of Education, in 2017 work began for the creation of [The Flying Nest](#) with the same goal—to make the museum, its philosophy and its heritage travel outside the museum's walls.

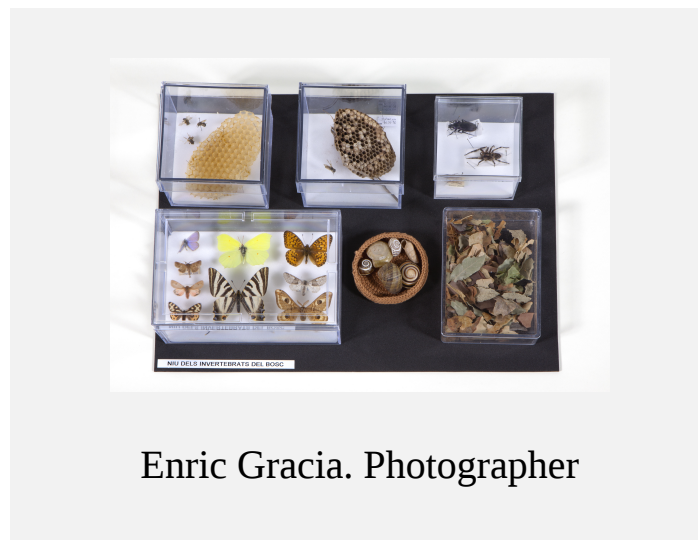
At any museum, the importance of objects and their didactic, evocative and bond-generating role is indisputable. Moreover, if the object is also available, its role becomes even more powerful. Having manipulable natural material is not easy and requires the involvement of many people at the museum, both in obtaining and preparing samples. The Flying Nest, however, is not a simple resource for borrowing natural material—it goes much further and includes training and counseling sessions so that nursery school teachers can make these materials their own by applying the Science Nest's own teaching methodology in their classrooms.

The Flying Nest proposes six themed nests with natural materials and related didactic proposals:

- A geological materials nest.

- A vegetables nest.
- A sea nest.
- A (vertebrate) forest animals nest.
- A (invertebrate) forest animals nest.
- A books nest.

The Flying Nest also has its “Script for the teaching staff,” a comprehensive document detailing all the necessary aspects to choose the most suitable space for The Flying Nest at each school, to distribute their materials, to structure their sessions didactically and to carry them out satisfactorily. It also provides information on its whole offer of different natural materials, and on how to stimulate children through questions, research itineraries and diverse and rich conversations.



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Pilot test. Joint work between nursery schools and the museum

The aim of the museum is for its Department of Education and Activities to work together with schools in order to develop projects that are not only interesting because of the contents they give away but that also adapt to the reality of each center. Having this in mind, once completed, The Flying Nest began a pilot test period in which four municipal nursery schools in Barcelona (EBM Carabassa, EBM Júpiter, EBM Can Bruixa and EBM Ciutat de Mallorca) took part during the second half of 2019.

The pilot test period included a presentation-training session at the museum to pass on the educational model and philosophy of The Science Nest to teachers, and to help them become familiar with the materials and the six didactic proposals of The Flying Nest.

Each school had The Flying Nest for four weeks, and the Department of Education and Activities' technicians and educators offered the necessary support to each one of them to specify and carry out their sessions with their students through consultations and meetings with teachers, as well as with visits and sessions at schools.

Each and every one of the doubts, comments and reflections that the four schools were raising, as well as their final assessment session in July 2019, were essential to finish polishing some aspects of the project, and then The Flying Nest was ready to fly on to new schools during the 2019-2020 school year.

The Flying Nest takes off! Year 2019-2020

In the 2019-2020 school year, The Flying Nest began its flight to new schools and new children. In autumn, a new training session was held at the museum to introduce the project to the teaching staff of eight new schools that would participate during the course,

and The Flying Nest ended up visiting four of them. The museum's educators carried out the first sessions in each center and thereafter accompanied their teachers in the process of taking over. The Flying Nest was welcomed in very different spaces, and teachers passed on the ideas that it had suggested to them—using natural materials in a different way, reflecting on the differences between the dynamics of The Flying Nest and the dynamics of the experimenting spaces, and combining materials in different ways according to each session.

The last one of these schools, EBM Ralet, today has its own “nest,” The Ralet Nest, born of the work and reflections carried out by the whole team during those weeks in which they had *our* Flying Nest. All the classrooms at the school have contact with The Ralet Nest, and both the choice and the arrangement and organization of the materials have given rise to a fantastic proposal. From the Museum of Natural Sciences, we want to congratulate the whole team at the school!

Unfortunately, after visiting these first four centers, The Flying Nest's flight schedule was disrupted due to the closure of all schools on 13 March 2020 as a preventive measure to deal with the health emergency caused by the Covid-19 pandemic.

To sum up, the 2019-2020 school year ended exceptionally well. Although schools reopened in the 2020-2021 school year, it was a different school year, with constant adaptations and huge doses of imagination by the whole all educational staff. As educational agents at the service of the community, museums have also adapted to a different reality from the one we had experienced so far, without losing sight of our mission, our philosophy and our way of doing things.

A Flying Nest Morning. The adaptation in the midst of Covid

During the 2020-2021 year, girls and boys returned to school, but their usual dynamics (and also the museums') changed *a lot*. Given the impossibility of entering municipal nursery schools and the hygiene and disinfection measures that had to be implemented, The Flying Nest adapted to the circumstances to continue bringing the Museum of Natural Sciences of Barcelona closer to nursery schools.

But—how? How to offer an activity for children aged 2 and 3 with natural materials, many of which are not easily disinfected and therefore cannot be shared outside the bubble groups? How to convey the philosophy and dynamics of The Science Nest, based on contact with real materials, while maintaining security precautions? Easy—a Flying Nest morning!

As the course progressed and the measures against Covid relaxed a bit, teachers and educators were finding new formulas to face the challenges of the new ways of doing things. Although The Flying Nest could not function as it was thought out, the museum's educators were able to enter some schools to do activities with The Flying Nest. So, in April, we did a pilot test of A Flying Nest Morning at the Maria Reina kindergarten, a center in the vicinity of the Museum of Natural Sciences-Forum Park. The two educators went to the school and held two sessions in one morning with small groups of children from the same bubble group, who could share materials without having to disinfect them. After a few days off for the materials to be quarantined, educators resumed their sessions with the other bubble group.

After this first experience, two more nursery schools enjoyed The Flying Nest in this format, one different morning for each group with a few quarantine days for the materials in between.

The experience of A Flying Nest Morning had a very good reception among teachers. During the sessions, children showed curiosity and interest in its materials, participated in some conversations, and established relationships between several different materials and between these materials and the

pictures in the reference books. Some teachers confessed to being a little “shaken” by the sessions of The Flying Nest that took place with their children and raised issues about their own practice that they have shared with us. For example, including more natural materials in the classrooms, seeing that some of the most “atypical” ones, such as insects, generated great interest among children. Or thinking about how to ask questions about The Flying Nest to give way to children’s ideas. Or considering books that were already in the classroom as important resources in the science learning process.

And, naturally, we the museum’s team also enjoyed this experience, as during this year of exceptional adaptations we also had a great desire to make the nest fly.

And what about the 2021-2022 school year?

This new school year set off with lots of energy, and now that the hygiene and safety guidelines allow natural materials to be handled in the most common way, The Flying Nest returns to the centers with the format in which it was conceived—it will stay at schools for a few weeks so that they can make the most of it. Teachers will be designing their own Flying Nest's sessions with the accompaniment and support of the museum's educational team.

The Flying Nest is flying again to bring the Museum of Natural Sciences closer to younger children—because everyone is born for science!

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