



Spain

Topic:
Creative Skills

Achievement:
Learning Together

Sector:
Design & Fashion

Transfo Lab: From Cradle to Maker

At the Learning Lab “From Cradle to Maker” by TransfoLAB BCN, primary school students discovered the power of upcycling and circular design. Through guided visits and hands-on workshops, they transformed discarded materials into creative objects to learn that sustainability is something they can design, build, and take home.

Challenge

Teachers at La Llacuna del Poblenou primary school in Barcelona had identified a recurring issue: while students were enthusiastic and creative, they lacked structured guidance in material selection, joining techniques, and the efficient use of resources. Projects often produced unnecessary waste, and pupils struggled to understand how to work sustainably with different materials. TransfoLAB BCN designed the Learning Lab From Cradle to Maker to address these gaps by introducing students to circular design, upcycling, and maker-based learning inside a real professional workspace.

Solution

TransfoLAB BCN invited students into its makerspace for guided visits followed by hands-on workshops. Each session introduced key concepts—upcycling, circular economy, the creative process, and material selection—before students designed and built their own objects using discarded materials. By expanding the workspace, extending session lengths, and adding extra tools, the team ensured that even large groups and students with special needs could work safely and inclusively. The workshop environment allowed students to see how professional creatives work, explore tools and materials, and immediately apply circular-design principles to their projects.

Impact

The Learning Lab successfully empowered students to see waste as a resource and design as a tool for environmental responsibility. Participants gained practical skills in material handling, joining techniques, and sustainable production, while experiencing the creative process from idea to final object. Teachers reported that learning objectives were fully met and that the programme effectively addressed earlier shortcomings in students' project work. For TransfoLAB BCN, the project also provided valuable insights into adapting maker spaces for children, improving inclusivity, and navigating ethical and logistical considerations in school collaborations.

Milestones & Learnings

Guided tours of the makerspace helped students understand professional workflows and sparked strong curiosity

Short lectures provided a solid conceptual foundation on sustainability, upcycling, and efficient material selection

Practical workshops allowed students to transform discarded materials into new creations, reinforcing circular-economy principles

Session lengths and layouts were adapted to accommodate larger groups and ensure ergonomic, inclusive participation

Children demonstrated significant progress in choosing materials wisely, reducing waste, and solving construction challenges

The programme directly addressed issues noted in previous years regarding inefficient use of materials

Key Takeaways

- Students learned how to select, combine, and join materials efficiently, then applied these principles by designing and building objects from discarded materials.
- Adaptability Under Constraints: Pandemic-related challenges required larger group sessions, extended durations, additional tools, and space adjustments—demonstrating flexibility in planning and delivery.
- Positive Educational Impact: Teachers confirmed the program met its objectives, solving previous challenges in material use and creative process training, while students showed enthusiasm and produced impressive creations.
- Inclusive and Ethical Approach: The Lab successfully engaged diverse learners, including those with special needs, and provided insights for future programs on ergonomics, ethics, and space optimization for children.

Learn more [here](#).