



Museums for America

Sample Application MA-260484-OMS-26
Project Category: Lifelong Learning

DuPage Children's Museum

Amount awarded by IMLS:	\$300,000
Amount of cost share:	\$312,561

The DuPage Children's Museum will strengthen its experiential learning environment by upgrading key exhibits to enhance functionality and hands-on learning opportunities for visitors. In response to community feedback, the museum will conduct a phased revitalization of exhibit components in existing thematic areas that focus on creativity and energy. The in-house exhibits team will work with other staff to develop, design, fabricate, and install new exhibit components and multilingual signage across 8,000 square feet of space in first-floor galleries. Families and members will participate in focus groups and prototype testing to provide feedback and observations to guide the refinement of exhibit concepts prior to full production. The museum will conduct formative evaluation during prototyping and summative evaluation after each updated space is completed. The project will primarily benefit children ages 0–10 and their caregivers from a seven-county area surrounding Chicago.

Attached are the following components excerpted from the original application.

- Narrative
- Schedule of Completion

When preparing an application for the next deadline, be sure to follow the instructions in the most recent Notice of Funding Opportunity for the grant program to which you are applying.

NARRATIVE

Project Justification

DuPage Children's Museum (DCM) proposes "Revitalizing Play: Renewing DCM's Core Learning Environments" a comprehensive, phased refurbishment and redevelopment of core exhibit areas. This project addresses the Museums for America Goal 1, to advance the capacity of a museum to serve people of all ages and backgrounds through experiential learning and discovery, and Objective 1.1, to support exhibitions and interpretation.

The project will strengthen DCM's capacity by renewing aging exhibits to improve reliability and functionality and refining signage to better align with our updated playful learning framework (Supporting Document 1). Rather than building entirely new galleries, DCM will strategically refurbish, redesign, and reinterpret existing experiences to ensure they remain engaging, accessible, and educational for today's families. This work directly advances DCM's strategic priority of transforming the DCM Campus to support an expanded audience and impact through exceptional, welcoming guest experiences designed to nurture joyful discovery and learning at every touch point. This project directly responds to community feedback and enhances our offerings to foster a better experience for all visitors, enhance our capacity to serve our audience, and deepen the impact of the hands-on learning experiences we offer.

DCM has 4 main areas (also called neighborhoods) on the first floor of the museum: Creativity Connections, Make It Move, Build It, and AWESome Energy (consisting of Air, Water, and Electricity). Each neighborhood includes multiple exhibit experiences that are all designed around a central theme (See Supporting Document 2 for more information on the neighborhoods included in this proposal). In addition to the main neighborhoods, we also have two Young Explorer areas for children under 2 which complement the 1st floor exhibits. All but two of the experiences on the main level were installed between 2012 and 2017. With more than 300,000 visitors per year, many experiences are now reaching or exceeding their 10 year useful life. The AWESome Energy neighborhood, in particular, contains approximately 1,000 square feet of exhibit space where several components are no longer functioning at full capacity. Electricity exhibits installed in 2012 are now nearly 15 years old, and the Air exhibits are approaching 10 years of heavy use. As a result, this neighborhood generates the highest volume of visitor complaints, and its dysfunction places a heavier demand on our maintenance team than when exhibits are operating at full capacity. Importantly, this project is not justified purely on the length of time the exhibits have been in operation; the updates are critical because the declining condition of these exhibits compromises both museum capacity and the integrity of the learning experience.



The project we are proposing is based on preliminary work we have done to review each exhibit experience, categorize them by condition, and make individualized plans for revisions (See Supporting Document 3). Using feedback from our guests (See Supporting Document 4), guest experience team, and exhibit maintenance and development team, we have determined that 39% of the experiences on the first floor need to be replaced, refurbished, or removed (See Supporting Document 3). However, large-scale neighborhood overhauls (\$500K–\$1M) are not feasible or optimal, and instead a targeted, phased approach is preferred for feasibility: we can conduct observations and evaluations on an ongoing basis that will shape the revision plans, and we can ensure that each piece is executed thoughtfully and completely before moving onto new experiences. This phased approach to the revision of various pieces within each neighborhood will also ensure the project is fiscally responsible. Finally, the feasibility of this project is strong because our efforts are not focused on creating entirely new exhibit concepts. DCM has a longstanding history of in-house exhibit development and maintains a catalog of previously successful experiences. Many of these experiences can be renewed to serve current audiences. Our goal is to revive exhibit designs that have been successful in the past, will be new to our current audience, and align with the neighborhood's existing theme. Because these experiences have already proven popular with visitors and have existing design plans, they can be redeveloped with substantially less research time and resource investment. This approach reduces cost, leverages institutional knowledge, and maintains continuity with DCM's identity while ensuring visitors experience renewed, high-functioning exhibits.

The primary audience for this project is children ages 0 to 10 and their caregivers visiting from several Chicagoland counties (DuPage, Cook, Will, Kane, Kendall, McHenry and DeKalb) as well as the rest of Illinois and across the United States. During the period of performance, DCM anticipates serving approximately 300,000 visitors each year, totalling 900,000. Caregivers are a critical component of the primary audience. Updated signage and interpretive materials will reinforce DCM's pedagogical approach, which includes an emphasis on loose parts play and discovery-based engagement.

Audience involvement in planning has included:

- Prototyping during the initial development of the air and water exhibits, which gathered direct visitor feedback.
- Observations of exhibit use patterns.
- Feedback from visitors (See Supporting Document 3) and guest experience staff.

The ultimate beneficiaries of this project include:

- Current and future visitors who will experience revitalized exhibits over the next 10 to 15 years. This includes local children ages 0 to 10 and their important adults (e.g., parents, grandparents, nannies and other daily caretakers, educators, and community leaders).

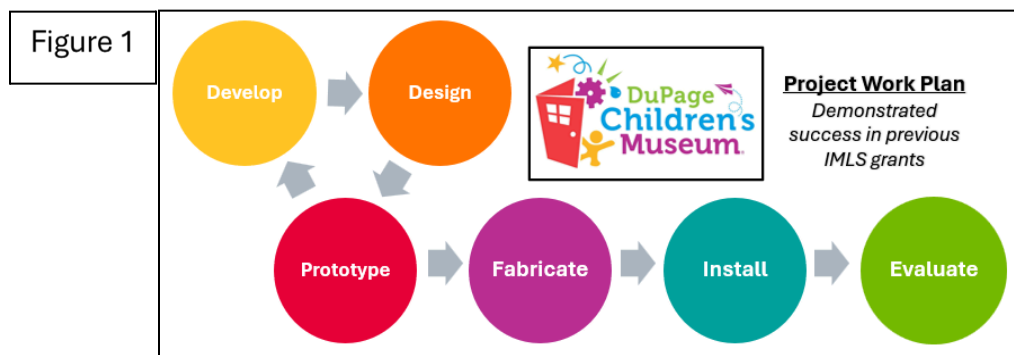


- Museum staff who will benefit from improved documentation and more sustainable maintenance systems.
- The broader regional community, which relies on DCM as a high-quality experiential learning resource.

By increasing exhibit reliability and strengthening interpretation, the project ensures that experiential STEM and art-based learning remains accessible and meaningful for thousands of children annually.

Project Work Plan

The project will unfold in sequenced phases from September 2026 through the end of August 2029. DCM's Exhibits Team utilizes an established, iterative process to guide the development and implementation of exhibit projects (Figure 1). After completing high impact updates across the first floor, we will focus deeply on the two neighborhoods that need the most redevelopment: Creativity Connections and AWEsome Energy. We will develop, design, prototype, fabricate, install, and evaluate the experiences in those spaces.



Year 1: September 2026 - August 2027

Complete High Impact Changes

In Year 1, we will execute high impact enhancements, refurbishing first floor experiences that need relatively simple changes. These targeted refurbishments will maintain the spaces' functionality for a few years, extending the areas' useful life while preserving strong visitor engagement. By implementing these strategic improvements, we can maintain vibrant, functional exhibit spaces for several more years while thoughtfully planning and designing large-scale replacements. This approach allows us to avoid rushed redevelopment and instead invest in intentional, research-informed exhibit transformation over time.

For example, within our AWEsome Energy neighborhood, planned updates include restoring functionality to Stomp Launchers by replacing all of the parts that work together to demonstrate the power of compressed air and install a redesigned water wheel in the Stream Table to create a more dynamic and contrasting exploration experience (See Supporting Document 2). These efforts will continue until the end of the calendar year.

Focus on Creativity Connections

Simultaneously, we will begin work on the reimagining of our Creativity Connections neighborhood. We will retain the neighborhood's current themes of light, color, and artistic expression while fostering more meaningful, developmentally rich play interactions. The revised experiences will align more intentionally with DCM's Learning Framework, an extension of our Strategic Plan, ensuring that exhibit design, educational outcomes, and organizational goals are fully integrated.

We will iteratively develop, design, and prototype the experiences before moving on to fabrication. DCM will actively engage families and members through focus groups and prototype testing to gather feedback and observations, allowing us to refine exhibit concepts prior to full production. This participatory approach ensures that the final experiences reflect community input and meet the developmental needs of our audience.

Start AWEsome Energy

Late in the first year, we will also begin the development process for the AWEsome Energy neighborhood. Drawing on extensive research and historical data from the original development of these spaces, our team will implement purposeful and strategic updates informed by prior experience rather than undertaking full-scale reconceptualizations. Leveraging this existing body of knowledge allows us to use resources efficiently while strengthening educational impact.

Year 2: September 2027 - August 2028

Finish Creativity Connections

In Year 2, we will finish fabrication and complete installation for Creativity Connections. After installation, a mixed-method summative evaluation will assess overall impact, which will be overseen by the Executive Vice President of Joyful Learning.

Focus on AWEsome Energy

Ongoing development work for AWEsome Energy updates will conclude in December 2027. Then, DCM will begin designing and prototyping new experiences in the AWEsome Energy neighborhood. The work on the AWEsome Energy neighborhood is expected to take more time and resources than Creativity Connections because the former, being an electricity-focused space, requires much more detailed and technical work. For example, rebuilding the Pedal for Power experience, where children pedal a bike to



power light-up tubes on a wall, will require updated technology and wiring that is more detailed and resource-heavy than updates in Creativity Connections.

Year 3: September 2028 - August 2029

Finish and Evaluate AWESome Energy

In Year 3, we will finish the design and prototype process in the AWESome Energy neighborhood. Fabrication will then begin in October 2028 and continue until May 2029, with installation to be completed in June 2029. The project will culminate with a mixed-method summative evaluation of the AWESome Energy space to measure visitor engagement and exhibit alignment with DCM's Learning Framework. Results from this evaluation will be reviewed by the Executive Vice President of Joyful Learning and used to guide future refinements, ensuring the exhibits remain engaging, effective, and aligned with DCM's learning goals long after the conclusion of the grant itself.

Project Management and Implementation

This project will be led by DCM's Project Manager under the leadership of DCM's Executive Vice President (EVP) of Joyful Learning. The Project Manager brings prior engineering experience and deep familiarity with DCM's exhibit development processes, including timeline creation and adaptation. The EVP of Joyful Learning will provide strategic oversight, ensuring all exhibit concepts align with DCM's Learning Framework and broader organizational goals.

DCM's Exhibits Team will collaborate on concept development and implement fabrication and installation. Progress will be guided through structured weekly exhibit meetings, milestone-based planning, and project-specific check-ins. A shared documentation and formal sign-off process will ensure clarity of objectives, alignment across teams, and continuity in the event of personnel transitions, thereby safeguarding institutional knowledge.

Progress will be tracked by setting specific milestones and regularly evaluating whether those milestones have been met (See Performance Measurement Plan), which will be a primary responsibility of the Project Manager.

Successful implementation will require:

- In-house exhibit design and fabrication capacity.
- Materials to support refurbishment and redevelopment efforts.
- Dedicated staff time allocated for development, design, prototyping, fabrication, and installation.
- Limited contracted services for specialty skills and tools may be required depending on the final exhibit designs. If the necessary tools or skillsets are beyond the scope of our capabilities, we will seek external assistance to maintain high-quality execution while upholding fiscal responsibility.

Risks and Mitigation

DCM recognizes several potential risks associated with multi-year exhibit development projects and has established clear systems to proactively mitigate them.

Delays or personnel transitions represent the most common operational risks. These are mitigated through structured project management systems that include documented timelines, milestone-based tracking, and clearly defined roles and responsibilities. Weekly exhibit meetings and cross-departmental check-ins ensure transparency and shared ownership across exhibit management, fabrication, and graphics/design teams. There is a shared sign-off procedure that occurs before we move forward on any fabrication or refinishing work. This ensures collective clarity around scope, specifications, and outcomes before implementation begins.

Budget overages, particularly related to material cost volatility, represent the most significant financial risk. To mitigate this, DCM develops budgets using both detailed material estimates and industry-standard cost-per-square-foot benchmarks. Regular financial reviews compare projection expenses against actual expenditures to ensure alignment and allow for early course correction. However, because certain external factors, such as fluctuation in material pricing, are beyond our control, DCM has developed clear contingency plans. If materials costs rise, we will:

- Adjust scope strategically to preserve core learning objectives within the funding allowed.
- Identify and substitute cost-effective alternative materials (e.g., laminate instead of Corian).
- Increase in-house labor to offset external contracting costs.
- Pursue additional philanthropic support through fundraising efforts, if necessary.

Project Results

This project will significantly enhance the visitor experience by reestablishing functionality in aging exhibits and realigning interpretive signage with DCM's new Learning Framework. As a result, our first-floor neighborhoods will feature fully revitalized exhibit experiences, supported by refreshed and expanded signage. Revitalized and multilingual signage will publicize the pedagogical foundations of our exhibits more broadly, helping caregivers better understand the loose parts approach ([Cankaya et al., 2023](#)) and playful learning criteria ([Zosh et al., 2017](#)) that our experiences are thoughtfully designed around. By making these frameworks more visible and accessible to caregivers, we aim to deepen adult understanding of how and why children learn through play.

The benefits of this work will be sustained over the long term through DCM's established maintenance infrastructure. Routine exhibit care is conducted year-round under the leadership of the Exhibits Team. Beyond that day-to-day maintenance, our Annual Maintenance Period (AMP), a two week time frame where we close the museum and engage in deeper



refurbishment efforts, will ensure that DCM proactively extends exhibit lifespan and preserves functionality. During AMP, exhibit faces are repainted, minor updates like resealing the water table are executed, and hard-to-reach spaces are cleaned. Each of these ensures that the revitalized exhibits made possible by this project will be maintained and functional for their full 10 year lifespan. The fact that the Creativity Connections and AWESome Energy exhibits that are the focus of this project are reaching the far end of their lifespan is evidence to the success of these sustainability and upkeep practices, underscoring DCM's responsible stewardship of capital investments.

In response to the declining functionality of the 10+ year old exhibit experiences in our first floor neighborhoods, recent feedback from our audience, and our strategic goals to broaden access and deepen alignment with our learning framework, DCM seeks support from IMLS to refurbish and revitalize key experiences within Creativity Connections and AWESome Energy, including updated signage. This project directly advances IMLS Goal 1 and Objective 1.1 by strengthening the quality, accessibility, and educational impact of our core learning environments. The result will be an improved visitor experience and renewed exhibit areas that ensure DCM remains a trusted, research-informed, and engaging experiential learning environment for families across DuPage County and the state of Illinois.

References

Cankaya, O., Rohatyn-Martin, N., Leach, J., Taylor, K., & Bulut, O. (2023). Preschool Children's Loose Parts Play and the Relationship to Cognitive Development: A Review of the Literature. *Journal of Intelligence*, 11(8). Scopus.

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Zosh, J., Hopkins, E., Jensen, H., Liu, C., Neale, D., Hirsh-Pasek, K., Solis, L., & Whitebread, D. (2017). *Learning through play: A review of the evidence [White paper]*. The Lego Foundation.

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SCHEDULE OF COMPLETION

DUPAGE CHILDREN'S MUSEUM

IMLS YEAR 1

	26-Sep	26-Oct	26-Nov	26-Dec	27-Jan	27-Feb	27-Mar	27-Apr	27-May	27-Jun	27-Jul	27-Aug
1 Execute high impact repairs across the first floor												
2 Creativity Connections: Development												
3 Creativity Connections: Design and Prototyping												
4 Creativity Connections: Fabrication												
5 Creativity Connections: Installation												
6 Creativity Connections: Summative Evaluation												
7 AWEsome Energy: Development												
8 AWEsome Energy: Design and Prototyping												
9 AWEsome Energy: Fabrication												
10 AWEsome Energy: Installation												
11 AWEsome Energy: Summative Evaluation												

IMLS YEAR 2

	27-Sep	27-Oct	27-Nov	27-Dec	28-Jan	28-Feb	28-Mar	28-Apr	28-May	28-Jun	28-Jul	28-Aug
1 Execute high impact repairs across the first floor												
2 Creativity Connections: Development												
3 Creativity Connections: Design and Prototyping												
4 Creativity Connections: Fabrication												
5 Creativity Connections: Installation												
6 Creativity Connections: Summative Evaluation												
7 AWEsome Energy: Development												
8 AWEsome Energy: Design and Prototyping												
9 AWEsome Energy: Fabrication												
10 AWEsome Energy: Installation												
11 AWEsome Energy: Summative Evaluation												

IMLS YEAR 3

	28-Sep	28-Oct	28-Nov	28-Dec	29-Jan	1-Feb	29-Mar	29-Apr	29-May	29-Jun	29-Jul	29-Aug
1 Execute high impact repairs across the first floor												
2 Creativity Connections: Development												
3 Creativity Connections: Design and Prototyping												
4 Creativity Connections: Fabrication												
5 Creativity Connections: Installation												
6 Creativity Connections: Summative Evaluation												
7 AWEsome Energy: Development												
8 AWEsome Energy: Design and Prototyping												
9 AWEsome Energy: Fabrication												
10 AWEsome Energy: Installation												
11 AWEsome Energy: Summative Evaluation												