

The Urban Libraries Council (ULC) is requesting a National Leadership Grant for **Partners for Middle School STEM Phase 2: Summer Learning Challenge** as a Lifelong Learning Project grant. The partners will scale field adoption of middle school STEM programs and advance models for equity focused STEM summer learning. This 27-month initiative includes a budget of \$698,720 with an IMLS request of \$349,360.

Statement of National Need

The U.S. is seeing rapid growth in jobs related to science, technology, engineering and math (STEM) and we will not be able to meet future workplace demands if we cannot engage, inspire and educate our growing, ethnically diverse populations (NSF, 2011). Middle school is a key time for increasing exposure to and confidence in STEM. Middle school youth have increased capacity for intellectual processes and active learning including abstract thinking. Youth experience both a surge in brain development (NEA, 2014) and exposure to subjects that influence their pursuits in high school, college and careers (Afterschool Alliance, 2010; YALSA, 2014; Maltese, 2014). The achievement gap (or “opportunity gap”) in math and sciences is particularly harmful for students who disproportionately face challenges linked to income, race and poverty (NAEYC, 2018). This gap is magnified by lack of access to out-of-school time learning and digital connectivity.

Youth who lack access to high-quality STEM learning in out-of-school time and the summer often fall behind their more privileged peers (Afterschool Alliance, 2015, NSLA, 2017). STEM skills are linked to vocational and educational opportunities (White House, 2012). This, in turn, leads to earning potential and increased opportunity over the course of a lifetime (NRC, 2012). [STEM opportunities have become even more critical](#) given the inequities caused by COVID-19 across formal education, critical informal learning and digital access.

With funding from IMLS, ULC launched **Partners for Middle School STEM – Phase I**. This work built directly on the Learning Labs and Accelerate Summer Learning initiatives funded by IMLS and led by ULC. The Phase I pilots demonstrated the capacity of public libraries to engage low-income youth with STEM education. Libraries evolved program and assessment models, partnerships and staffing to reach low-income youth with high quality STEM opportunities. Phase I showed that an equity-based approach to STEM can effectively re-engage youth who have aged out of other children’s programs. (ULC, 2020).

Project Design

The second phase **scales adoption** and issues a national **Middle School Summer Learning Challenge**. Further, the second phase **deepens field knowledge** by engaging 30 libraries building a STEM equity focus for summer learning programs, demonstrating effective ways for libraries to:

- **Make the transition to summer learning:** Participating libraries will apply the resources created across ULC/NSLA initiatives to evolve traditional summer programs to support **summer learning**.
- **Build institutional capacity to offer impactful STEM programing:** Participating libraries will build partnerships and engage proven youth development methodologies and STEM practices.
- **Engage evaluation and assessment models:** Participating libraries will pilot assessment resources created in Phase I to support conversations with local leaders and partners on the library’s role in summer learning.

Phase II will build on the lessons learned while also directly engaging the challenges of COVID-19 in building new partnerships and piloting summer programs for connected and unconnected youth.

The project will be led by ULC and senior program advisor **Elizabeth McChesney** who led Chicago Public Libraries’ Summer Learning Challenge and children, youth and families’ programs. The **National Summer Learning Association (NSLA)** will bring their expertise and emerging library innovators community of practice. **HG&Co** and principal investigator Kate Haley Goldman will continue as project evaluator.

Stage I: Issue national call for applications for the **2022 Middle School Summer Learning Challenge** (20-30 new libraries). (August, September, October 2021)

- ULC and NSLA will issue a national call for new applications.
- The peer learning cohort selection process will expand by three peer library field reviewers.
- The original peer-learning cohort will have monthly advisory calls on adapting **Phase I resources (toolkit, video series, evaluation workbook and blog and program model series)** to focus on equity and summer learning.
- Conversations will collaboratively identify the ongoing challenges due to COVID-19 realities.

Stage II: Launch expanded peer learning cohort (30-40 libraries) to pilot the challenge and expand resources for middle school summer learning. Cohort libraries will:

- Lead the online learning series and design phase for Summer 2022 pilots. (November-April 2022)
- Implement middle school summer learning pilots. (May-August 2022)
- Capture lessons learned, models and evaluation results to expand national resources into a new **Middle School Summer Learning Challenge toolkit**. (August-November 2022)
- Work with self-selecting peer learning cohort libraries to pilot and scale a middle school STEM equity approach to summer learning for their library system in 2023. (October 2022-April 2023)

Stage III: Open the 2023 Middle School Summer Learning Challenge nationally for all libraries to participate with online resources and a learning series. ULC/NSLA will: (October 2022-October 2023)

- Issue a national call for all libraries to sign on to the challenge in Summer 2023.
- Launch a toolkit including sign-up materials, planning resources, suggested models and evaluation tools.
- Lead a “Prepare for the Summer Challenge” learning series addressing how and why libraries should 1) make the STEM equity and middle school commitment; 2) build partnerships, staff capacity and programs; 3) engage middle-school youth in co-designing programs; and 4) evaluate summer programming and communicate with leaders.
- Implement a media campaign to showcase libraries as summer equity leaders including a challenge map to showcase national library commitment, projects, partners and pilots.

Diversity Plan

Programs that expand beyond literacy allow the public library to honor divergent perspectives, knowledge and learning styles and broaden our ability to serve all segments of our communities. Each pilot program will identify a target youth audience and apply strategies to address inclusion challenges, from hosting bilingual programs and meeting youth where they are to partnering with local STEM role models and mentors.

Statement of National Impact

Research, including economic and job forecasting, reflects the critical need for all youth to have STEM knowledge and skills. Public libraries directly contribute to the education of youth of all ages, particularly in our most disadvantaged communities. This project will advance STEM equity conversations across participating libraries and build a national call for libraries to strength summer learning so that low-income youth can engage in active STEM experiences and gain interest and awareness in STEM.

Budget: The budget includes an IMLS request of \$349,360. Personnel \$72,000 (Program Manager .50FTE), Benefits \$21,600. Consultants \$140,000 (McChesney \$60,000, NSLA \$40,000, HG&Co \$40,000), Library Travel Support \$24,000 (2022 NSLA Conference) Library Pilot Materials \$40,000, Other Costs \$40,000 (toolkit, webinar fees) and Indirect Costs \$31,760 (10%). Match of \$349,360 includes Personnel \$17,600 (ULC and NSLA leadership), Challenge Libraries \$180,000 (120 hours, 30 libraries) and STEM Pilots \$120,000 (80 hours per pilot, 30 pilots) and Indirect Costs of \$31,760.