

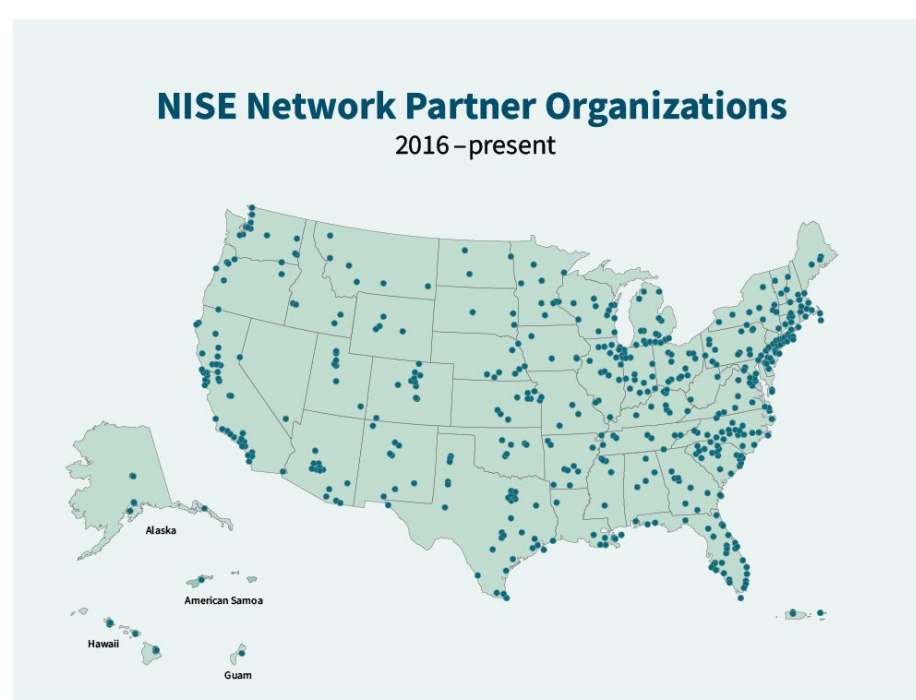
The Power of Networks to Increase Capacity of Informal Science Educators to Engage Local Communities:

An Example of the National Informal STEM Education Network (NISE Network)

The National Informal STEM Education Network (NISE Network) is a collaborative network of partner organizations and scientists who develop educational materials designed to engage the public on a variety of current science and technology topics in informal learning settings on a nationwide scale. The NISE Network generates, develops, implements, and collaborates on projects that strengthen and advance informal STEM learning in communities across the United States.

Collaborative Networks at a National Scale

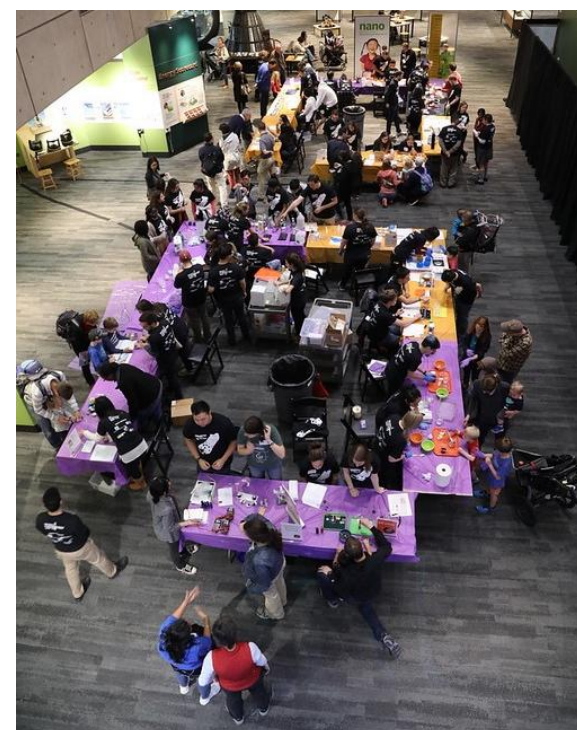
NISE Network achieves our impact through our partner organizations, which include science centers, children's museums, natural history museums, universities, and many others. Network projects create educational materials, support professional learning, and build capacity through collaboration and networking. Network partners create and share resources, knowledge, practices, and ideas. As a professional community, we are committed to learning alongside each other and to evolving the way we work as a result.



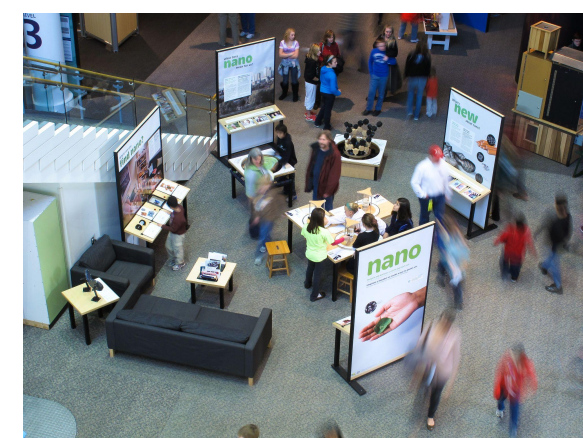
Large Scale Distribution Models

NISE Network has effectively implemented large-scale distribution of kits, exhibits, and mini-grants to partners nationwide on different STEM topics. **Kits** containing hands-on activities, consumable supplies, event planning materials, partnership guides, and professional learning resources were distributed to hundreds of museums nationwide. Small footprint **exhibitions** have been distributed to museums who take ownership and often share exhibits among regional networks. **Mini-grant** funding has enabled partners to customize local engagement to meet the needs and interests of their communities. These large-scale initiatives create the ability for educators and scientists to participate in nationwide programing, and in turn, learn and become inspired by each other.

nisenet.org/small-footprint-exhibition-big-impact
nisenet.org/catalog/nanodays-guide



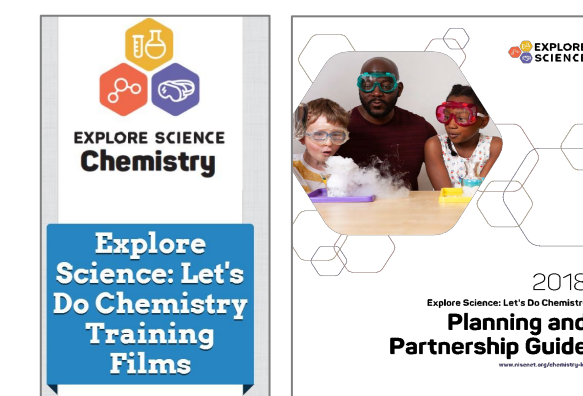
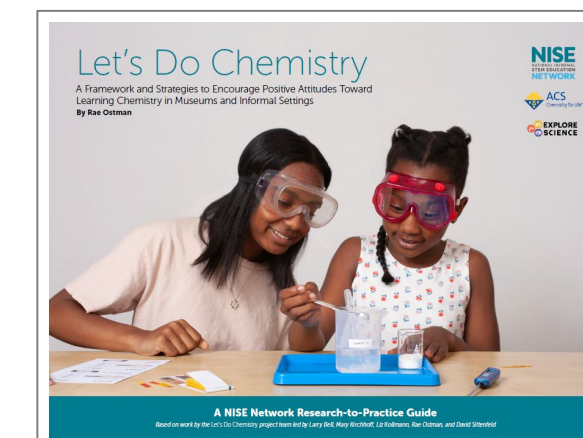
Photos courtesy of Museum of Science, Boston, MA, Discovery Station, Hagerstown, MD, and Science Museum of Minnesota, MN



Building Capacity with Professional Learning

NISE Network's theory of action focuses on creating and sharing resources that increase the capacity of informal science educators to effectively engage their own local communities. Resources designed to increase practitioner knowledge and skills include written guides on activities and practices, training videos, online workshops, professional learning communities, and in-person training.

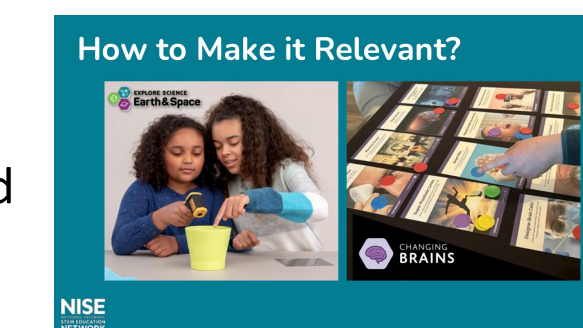
nisenet.org/pd



Designing for scale: intentionally planning for adaptation to increase relevance

To successfully achieve equitable scaling, public engagement materials should be intentionally designed to be easily shared and adapted locally. Easy customization helps to ensure experiences are relevant to local communities and appropriate for use in different settings. NISE Network encourages customizing content for local communities rather than a "one size fits all" model emphasizing fidelity.

nisenet.org/making-stem-relevant
nisenet.org/development_process-more
ngcproject.org/ScalingInformalSTEMPrograms



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**NASEM Convocation on the
Status of Informal Science and Engineering Education
June 2025**



Co-Creation with Experts and Local Communities

NISE Network educational materials are created through an iterative, collaborative process that involves scientists with expertise in the content area, informal science education professionals, and public audiences. Co-creating with experts and with communities helps to ensure that our public engagement materials are scientifically accurate, represent best practices in educational product development, and are safe, effective, and relevant experiences for learners of all ages.

nisenet.org/working-with-experts
nisenet.org/cocreatingcommunities



Embedding Ethical and Societal Implications

Programs are designed to incorporate ethical and society implications instead of simply focusing on "just facts." These themes are baked throughout a program, rather than just sprinkled on top.

nisenet.org/society
nisenet.org/catalog/nanotechnology-and-society-guide



Fostering Multi-Directional Conversations

Programs are designed to foster two-way conversations among members of the public with informal educators and scientists. This practice builds trust between the public and scientists, as well as mutual learning about science content and societal values.

nisenet.org/public-engagement-conversations-guide



Public Engagement with Science
A guide to creating conversations among public and scientists for mutual learning and societal decision-making

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