

National STEM Funders Network



The Pinkerton Foundation



Kern|FAMILY FOUNDATION



GORDON AND BETTY MOORE FOUNDATION



NOYCE FOUNDATION



the Lemelson foundation



SIMONS FOUNDATION



Initiative Overview - Recap



**Cohort 1:
27 sites (tier one)**

“Lite” support to remaining sites to assist in their efforts

2015-16

Technical Assistance

Communities of Practice



10 sites awarded collaboration grants of up to \$10k

Potential opportunity to host AmeriCorps Member? TBD



Cohort 2 Added to existing 27 sites

of New sites added (tbd)

2016-17

Technical Assistance

Communities of Practice



Development of peer-to-peer mentoring
Ongoing TA



Cohort 3 Added

Estimated 50-75 sites in total

2017-18

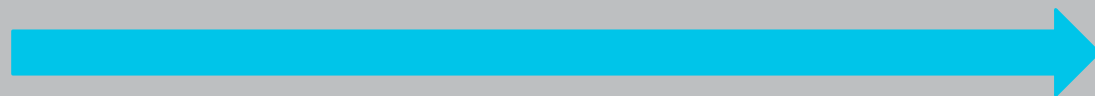
Technical Assistance

Communities of Practice



Further addition to peer-to-peer mentoring
Ongoing TA

Evaluation



The Ingredients of a STEM Ecosystem

Attributes for Successful STEM Learning Ecosystem

1. Anchored by strong passionate leader(s) with a collaborative vision and practice
2. Long term committed funding
3. Strong engaged after school partner
4. Credible engaged informal learning partner
5. Receptive public education partner
6. Attentive to the enlightened self-interest of all partners



Common Strategies

1. Building the capacity of educators in all sectors.
2. Equipping educators with tools and structures to enable sustained collaboration.
3. Linking in- and out-of-school STEM learning.
4. Creating learning progressions that connect and deepen STEM experiences over time.
5. Focusing instruction on inquiry, project-based learning and real-world connections to increase relevance.
6. Engaging families and communities.
7. Career opportunities focus



What is an Ecosystem?

STEM Learning Ecosystems – A Definition

A STEM learning ecosystem encompasses schools, community settings such as after-school and summer programs, science centers and museums, and informal experiences at home and in a variety of environments that together constitute a rich array of learning opportunities for young people. A learning ecosystem harnesses the unique contributions of all these different settings in symbiosis to deliver STEM learning for all children. Designed pathways enable young people to become engaged, knowledgeable and skilled in the STEM disciplines as they progress through childhood into adolescence and early adulthood.



From the working paper: "How Cross-Sector Collaborations are Advancing STEM Learning" 2015 By: Kathleen Traphagen & Saskia Trill

What to Expect from Participation

Communities of Practice

- **Peer-to-peer learning**
- **Peer-to-peer mentoring**
- **Share knowledge and research**
- **Monthly Communities of Practice calls/webinars**
- **Website for on-line communication and information sharing**

Technical Assistance

- **Assignment of a technical assistance lead as primary contact**
- **TA Lead will work with each site through design and implementation**
- **TA Lead maintain monthly contact with sites and conduct site visits (either individually or regionally)**
- **TA Lead will assist in creation of peer-to-peer/mentorship relationships**
- **Expert “Cloud”**

ecosySTEM KC

Partners on **ecosySTEM** KC Application

Lead Applicants

- KC STEM Alliance – **project lead**
- Kansas Enrichment Network
- Mid-America Regional Council
- Science Pioneers

Expert Partners

- KC Area Education Research Consortium
- Kansas City Digital Drive
- PrepKC
- Science City

School District Partners

- Kansas City, Kansas Public Schools
- Kansas City, Missouri Public Schools

Supporting Partners on Grant Application

Letters of Support

American Royal
Ewing Marion Kauffman Foundation
KC Public Library
KC Rising (KC Civic Council)
University of Kansas Center for STEM Learning

Online STEM Ecosystem Survey

Black & Veatch
Burns & McDonnell
Cerner
KC *FIRST* robotics
KC PLTW
KC Zoo
LINC
Minddrive
MO Mathematics & Science Coalition
UMKC School of Computing & Engineering
West Central Missouri AHEC

Delegates to Inaugural Convening – Nov. 11-12

Dr. Cynthia Lane – Superintendent, Kansas City Kansas Public Schools

LeAnn Smith – Executive Director, Science Pioneers

Karen Daniel – CFO, Black & Veatch and Vice Chair, KC Chamber of Commerce

Laura Loyacono – Executive Director, KC STEM Alliance

Martha McCabe – Manager of STEM Initiatives, KC STEM Alliance (project lead)