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# Helios STEM School Pilot

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## REQUEST FOR PROPOSAL

**Proposals Due - November 28, 2012**

Release date:	<b>September 25, 2012</b>
Letter of Intent:	<b>October 5, 2012</b>
Final notification date:	<b>March 1, 2013</b>



**Helios<sup>®</sup>**  
Education Foundation

# HELIOS STEM SCHOOL PILOT

## INTRODUCTION:

Thanks to a grant from the Helios Education Foundation, Science Foundation Arizona (SFAz) is issuing this Request for Proposal (RFP) to schools and districts to build integrated, rigorous and relevant science, technology, engineering, and mathematics (STEM) education opportunities. STEM education is an integrated, interdisciplinary approach to learning that provides project/problem-based and relevant experiences for students. STEM teaching and learning goes beyond mere transfer of knowledge. STEM education engages students and equips them with critical thinking, problem solving, creative, and collaborative skills.

As part of the Arizona STEM Network, the Helios Education Foundation and SFAz have formed a strategic partnership to invest in multiple schools and districts in order to:

- Support successful implementation of the state-adopted, internationally benchmarked Common Core State Standards and anticipated Next Generation Science Standards and assessments,
- Equip teachers with the knowledge and skills they need to provide access to quality STEM learning experiences for students regardless of their geographical location, academic ability, and socioeconomic status,
- Demonstrate effective implementation of STEM practices in a variety of schools and districts that can be sustained and measured, and
- Identify replicable and scalable models for incorporating STEM.

The ultimate goal is to improve student outcomes through greater achievement in math and science, improve success rates in math and science courses, and increase readiness for advanced math and science courses to better prepare students for success in college and career.

Participation in the Helios STEM School Pilot will be determined through this competitive RFP process.

## STEM IMMERSION MATRIX:

In developing a proposal, applicants must take advantage of the newly designed “STEM Immersion Matrix” ([www.sfaz.org/stemimmersion](http://www.sfaz.org/stemimmersion)).<sup>1</sup> This online tool provides a guide for schools and districts as they work to help bring quality STEM education into their daily operations.

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<sup>1</sup> The STEM Immersion Matrix was developed by Science Foundation Arizona as part of the Arizona STEM Network in collaboration with the Maricopa County Education Service Agency (MCESA).

There are four (4) models of STEM education presented in the Matrix:

**Exploratory:** A traditional school experience with STEM-related extracurricular opportunities offered *outside the regular school day*.

**Introductory:** A *traditional* school experience with STEM-related opportunities offered *in addition* to the current curriculum.

**Partial Immersion:** A *non-traditional* school experience where STEM-related experiences are *integrated* into the curriculum.

**Full Immersion:** A *non-traditional* school experience where STEM-related experiences *drive and determine* the curriculum.

Districts and schools will use this online tool to identify their current readiness for STEM education and to define how they can more fully incorporate STEM into their curriculum and school life over the next three years. Once selected, districts/schools participating in the Helios STEM School Pilot will be able to draw on the support of three full-time SFAz STEM Advisors.

## **FUNDING:**

Grant funding will not exceed \$500,000 over a three (3) year grant period.

## **ELIGIBILITY:**

Open to all public school and districts and not-for-profit public charter schools in Arizona.

## **SELECTION PROCESS:**

There is a two (2)-part review process:

1. Proposal Review: All proposals submitted in accordance with this RFP will be reviewed by an External Pilot Selection Committee. This Committee will recommend finalists for the Site Visit phase in January 2013.
2. Site Visits: Helios and SFAz staff will conduct site tours, relevant leaders and staff interviews, and observe brief (30 minutes) proposal presentations by relevant leaders and staff.

The SFAz Board of Directors and Helios will determine the final awardees. Final Grant Recipients will be selected based on the competitiveness of the proposals and the assessment conducted through the site visits.

## **REQUIRED PROPOSAL ELEMENTS:**

Quality proposals shall:

- Involve the broader community and private sector partnerships that leverage grant program opportunities and promote sustainability,
- Utilize the STEM Immersion Matrix to identify the current baseline and describe the desired level of attainment during the term of the grant,
- Demonstrate a commitment to staff development as needed to support proposal implementation,
- Demonstrate how the proposed activities will support the implementation of the Common Core State Standards, and
- Include a minimum 15% cash or in-kind match within the 3-year program budget.

## **PREFERRED PROPOSAL ELEMENTS:**

- Preference will be given to proposals that serve disadvantaged populations, such as low-income, minority or rural populations, and demonstrate an awareness of the target populations' unique characteristics by incorporating strategies that address those needs.
- While the scale of the pilot will vary depending on the level of STEM selected from the Matrix, preference will be given to schools and districts that demonstrate interest in making systemic change. For example, quality proposals will engage all teachers within the school and district by the end of the grant term.
- Awards will be distributed to include diverse geographical regions.

## **DATA MANAGEMENT, ASSESSMENT, AND EVALUATION:**

Final Award Recipients will:

- Be expected to manage project outcomes and deliverables, but will have access to STEM Technical Advisors throughout the grant term to assist the school/ district staff on an ongoing basis enabling real-time adjustments,
- Participate in a cross-site evaluation to be conducted by an independent, external evaluator,
- Commit to ongoing monitoring of the project implementation and working with a third-party independent evaluator,
- Agree to allow evaluators to collect observational and qualitative data, through such data collection activities as site visits, classroom observations, administrator and faculty interviews, and student focus groups, and
- Agree to provide available administrative data regarding their teachers and students. Potential data may include, but is not limited to:
  - Teacher observations, training and professional development data,
  - Student and teacher attendance data, and
  - Standardized test results and grades, such as AIMS or ACT.

The evaluation design will be developed in conjunction with Helios and SFaz, and will depend upon the chosen level of STEM Immersion and project specifications. Final award recipients will receive more information regarding the evaluation design once selection is complete.

## **PROPOSAL CONTENT REQUIREMENTS:**

### **Pre-Submission Steps:**

- Letter of Intent (**Attachment 1, due by 10/5/12**)
- Introductory Workshop Attendance (Early–Mid October, Dates TBD and posted on [www.sfaz.org](http://www.sfaz.org), Grant Opportunities)
- Assessment of Present STEM Education System (Use our online tool and document level identified in proposal)
- Determination of STEM Integration Goals (Use our online tool and document level identified in proposal)

### **Formal Proposal:**

#### **Format:**

Font: Times New Roman

Page Limit: 25 pages total

Maximum page limitations for individual components are shown below.

#### **I. Introduction:**

Must describe the community, district, and school demographics and demonstrate a commitment to STEM education and use of our online management tool as an impetus for transformative change. In addition, must clearly articulate the school/districts current STEM landscape and intended goal for the next three years. Please include:

- Cover Letter
- Abstract (1 page)
- Community, District and School Demographics (1 page)
- Description of District's Current System of Assessment (1 page)
- Description of District's Current Data Management System (1 page)
- District/School Current Vision (1 page)
- Assessment of Present STEM Education in School/District (1 page)
- District/School Vision at Completion of the Grant, specifying STEM Integration Goals (1 page)
- Evidence of Schools Desire and Capacity to Make the Changes Proposed in the Application (1 page)
- School Based Design Team (1 page)

Each applicant shall designate a Design Team to guide design, development and implementation of the proposal.<sup>2</sup> At a minimum, the Design Team should include:

Superintendent (Asst. Sup.)	Student(s)
Higher Education Member	Civic Leader
Teacher(s)	District Board of Ed. Member
Parents	Principal
District Level Finance Employee	Geographically Significant Employer

## **II. Implementation Plan:**

Should include a clear description of how the school/district is going to reach the goals they outlined in the introduction through this plan.

- Goals (must be measurable) (1 page)
- Objectives (1 page)
- Strategies (2 pages)
- Desired Outcomes (1 page)

## **III. Staff Development:**

Include a description of the district's/school's current staff development plans plus a description of future plans to support implementation of this proposal. SFaz STEM Staff will work with successful districts/schools to refine grant-specific STEM training and development plans post award.

- Summary of District's/School's Current Staff Development Plans (1 page)
- Identification of Strategies for Grant-Specific Staff Development Plans (1 page)

## **IV. Broader Community Support:**

Describe the Design Team leaders, outside of the district/school and how they intend to work with the district/school in achieving the goals of this proposal.

- Business and Civic Engagement (1 page)
- Other Collaborative Partners (1 page)

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<sup>2</sup> SFaz STEM Technical Advisors will work closely with the Design Team throughout the grant term including development, implementation, evaluation and progress.

## **V. Proof of Sustainability:**

Explain how the proposed work will be sustained after expiration of the grant and indicate a willingness to share and use evaluation data to support expansion and replication to other districts/schools.

- Sustainability Plan (2 pages)
- Willingness to Capture and Share Results, Data, and Best Practices (1 page)

## **VI. Budget and Funds Leveraged:**

Describe the expenses related to this program and how these expenses will be prioritized. Grant funds will not exceed \$500,000 over the three-year grant period. Explain how funding will be leveraged during the grant term and sustained after expiration of the grant.

- Budget Narrative (2 pages)
- Proposed Budget (1 page)
- Ability to Leverage Funding (1 page)

## **VII. Appendices and Letters of Support:**

- Letter of Support from Superintendent & Board
- Letter of Support from Area Businesses
- Letter of Support from Higher Education
- Other Items Important in Supporting the Proposal (Maximum 3)

## **SUBMISSION OF PROPOSAL:**

There is a two (2)-part submission process:

1. Science Foundation Arizona (SFAz) should receive proposals no later than 5:00 p.m. (Arizona time), on November 28, 2012. Four (4) copies of the proposal, (including one clearly marked "ORIGINAL") should be delivered to:

**Science Foundation Arizona  
400 East Van Buren Street, Suite 200  
Phoenix, AZ 85004**

2. Upload Application in PDF format to the SFAz FTP server at: <http://files.sfaz.org>. The username is hssp. The password is sfaz123.

- Applicants are responsible for timely submission.
- Proposals become the property of Science Foundation Arizona.
- Proposals containing all elements will receive careful consideration.



## **PROPOSAL FORMS:**

1. Required Intent to Submit Form (*Attachment 1*)
2. Proposal Checklist (*Attachment 2*)

### **Please direct all questions to:**

Beth Broome  
Manager, STEM Integration  
Science Foundation Arizona  
Arizona STEM Network  
602-682-2884  
[bbroome@sfaz.org](mailto:bbroome@sfaz.org)

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### **About Helios Education Foundation**

*Helios Education Foundation is focused on creating high expectations, college-going culture in Arizona and Florida by investing in initiatives that create opportunities for postsecondary education success. The Foundation focuses its investments across the education continuum in three key impact areas: Early Childhood Education, the Transition Years (Grades 5-12) and Postsecondary Scholarships.*

*As an engaged foundation, embedded in communities across both states, the Foundation is contributing its leadership, expertise and financial resources to better prepare students to succeed academically and to compete in a globally-competitive economy. Since 2006, Helios has invested over \$115 million in education-related programs and initiatives in Arizona and Florida. For more information about the Foundation, visit [www.helios.org](http://www.helios.org).*

### **About Science Foundation Arizona**

*Science Foundation Arizona (SFAz) is a 501(c)(3) non-profit organization initiated in 2006 by the Greater Phoenix Leadership Inc., Southern Arizona Leadership Council, and the Flagstaff Forty in conjunction with the executive and legislative branches of state government. SFAz serves as a catalyst for high-wage, knowledge-based jobs, and economic diversity through administration and strict oversight of research, development, and education grants to public education and other non-profit research performing institutions. For more information about the Foundation, visit [www.sfaz.org](http://www.sfaz.org).*

### **About Arizona STEM Network**

*The Arizona STEM Network is a first-of-its-kind strategic effort to help transform Arizona's educational system for STEM - Science, Technology, Engineering and Mathematics. Our STEM Network harnesses the power of community by providing educators, donors, and business leaders with the structure, tools, and resources needed to measure performance and make a real difference for students across the state.*

*The Arizona STEM Network's five-year plan, announced February 28, 2012 and led by SFAz, will leverage effective education practices and teaching advances including the state-adopted, internationally benchmarked Common Core Standards. The plan's driving force is to help Arizona children be successful in school, careers, and life.*

*The plan focuses on four strategic areas:*

- *Integrate STEM learning into Arizona schools and districts*
- *Develop and deploy a predictive analytics system to measure impacts*
- *Strengthen teacher effectiveness in STEM teaching*
- *Create opportunities for the private business sector to meaningfully engage with schools*

*For more information about the Network, visit [www.sfaz.org/live/page/stem-network](http://www.sfaz.org/live/page/stem-network).*



## **HELIOS STEM SCHOOL PILOT INTENT TO SUBMIT PROPOSAL**

**Project Director:** \_\_\_\_\_

**School or District:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Phone:** \_\_\_\_\_

**Email:** \_\_\_\_\_

**NCES Number:** \_\_\_\_\_

\_\_\_ I understand and agree to attend one of the RFP Information Workshops as a condition of submission for a proposal. Once scheduled, the dates, times, and locations of the Information Workshops will be posted on the SFAz website and transmitted electronically to all who submit a letter of intent.

\_\_\_ Selected schools agree to allow The Arizona STEM Network Led by Science Foundation Arizona to conduct an ongoing evaluation throughout the term of the program. This evaluation will include the collection and analysis of both quantitative and qualitative data.

**Please return by October 5, 2012**

Beth Broome

Science Foundation Arizona

400 East Van Buren Street, Suite 200

Phoenix AZ 85004

[bbroome@sfaz.org](mailto:bbroome@sfaz.org)



## **HELIOS STEM SCHOOL PILOT PROPOSAL CHECKLIST**

**School or District:** \_\_\_\_\_

**Project Director:** \_\_\_\_\_

**Contact Information:** \_\_\_\_\_

Please complete this checklist and include it with your proposal:

- Cover Letter
- Abstract
- Proposal (I-V)
- Proposed Budget and Narrative (VI)
- Appendices (VII)