

STEM Learning and Research (STELAR) Center @
Education Development Center

NSF Funding for Small Grants for
High Risk/High Gain (EAGER)
Maker Education Projects



Thursday, November 3, 2016

Who We Are

- Innovative Technology Experiences for Students and Teachers (ITEST) Program
- [STEM Learning & Research Center \(STELAR\)](#)
- [Education Development Center](#)
- Supporting the ITEST program and its grantees since 2003
- Available to assist those considering submitting an ITEST proposal

What We Do

- Facilitate projects' success through **technical support** with a focus on synthesis of findings
- Inform and influence the field of STEM stakeholders by **disseminating** project findings nationally
- Deepen the impact and reach of the ITEST program by **broadening participation** in the ITEST portfolio



Some of Our Activities

- **Webinars:** Effective Dissemination, Designing Research for ITEST Projects, Mentoring Models
- **Monthly Newsletter:** Information to stay updated on all things STEM and ITEST
- **Project Liaisons:** A STELAR staffer who works directly with each project to provide resources and make connections
- **Regional and Thematic Meetings:** A way for current projects to network with each other
- **Management Information System (MIS):** Annual collection of project information about what projects do, who they work with, what they have achieved

Find Resources on STELAR Website



 [Log in OR Join](#) | [Contact Us](#)

[Home](#) [About](#) [News](#) [Events](#) [Opportunities](#) [Projects](#) [Resources](#)

FEATURED POST

ITEST PROJECTS ADDRESS NSF PRIORITIES ON YOUTH PARTICIPATION, TEACHER PD & BROADENING PARTICIPATION

Read about the new ITEST syntheses!

[Learn more »](#)



Helping prepare a diverse, skilled, and innovative STEM workforce.

TEXT SEARCH 

[ADVANCED SEARCH](#)



How STELAR Can Help You



ITEST Program Findings



ITEST Proposal Development



STELAR Materials



Join Our Mailing List

Get Ideas for Designing ITEST Proposals

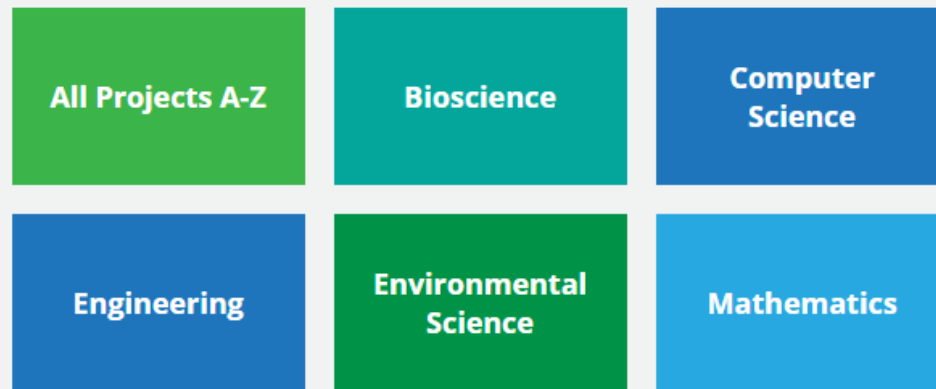
ITEST Proposal Development: <http://stelar.edc.org/proposal-development>

- + GET TO KNOW ITEST
- + PREPARE YOUR PROPOSAL FOR SUBMISSION
- + DEVELOP A ROBUST RESEARCH DESIGN
- + CREATE AN EFFECTIVE EVALUATION STRATEGY
- + CONNECT WITH PARTNERS
- + REACH UNDERSERVED POPULATIONS
- + DEVELOP THE WORKFORCE OF THE FUTURE

Explore Project Profiles

1 - 8 of 312

[Download Results](#)



Opportunities to Learn: Creative Science Through Inquiry, a Middle Grades Teaming Framework

2016 - 2019

This project will develop opportunities for students to learn creatively in science through inquiry. The project will prepare 72 middle school teachers to work with approximately 1800 students from economically disadvantaged schools who have had...

SEARCH FOR PROJECTS

Multiple criteria within a field is an OR condition. Multiple fields are AND conditions.

- + DISCIPLINE(S)
- + PROJECT PARTICIPANT(S)
- + PROJECT GRADE SPAN(S)
- + PROJECT SETTING(S)
- + STATES WHERE WORK OCCURS
- + PROJECT STATUS

Apply Filters

Resource Library – Publications, Curricular Materials & Instruments

1 - 8 of 629

[Download Results](#)

Events

News

Instruments

Publications

Opportunities

Curricular Materials

STELAR ITEST PI & Evaluator Summit 2017 - Save the Date

Thursday, June 15, 2017 - 8:00am to Friday, June 16, 2017 - 5:00pm

Event at Westin Arlington Gateway

Save the date for the 2017 STELAR ITEST PI & Evaluator Summit! The summit is an opportunity for ITEST Principal Investigators (PIs) and evaluators to come together and share successes, challenges, and lessons learned from the ITEST...

[READ MORE »](#)

SEARCH FOR RESOURCES

Multiple criteria within a field is an OR condition. Multiple fields are AND conditions.



RESOURCE TYPE



DISCIPLINE(S)



TOPIC(S)

Apply Filters

Clear Filters

Connect with others via the People Connector

<http://stelar.edc.org/opportunities/people-connector-directory>

People Connector Form


People Connector Directory

STELAR People Connector Directory - Add your Information

The purpose of this directory is to connect individuals looking for partners or tools for their ITEST proposals with those who can provide partnership or tools (e.g., a school district looking for a research methodologist, a community-based organization looking for an external evaluator).

Please complete this form if you are looking for or can provide specific expertise for ITEST proposals. The information you provide will be publicly available and accessible via the STELAR website.

* Required



STEM Learning and Research Center

First name *

Last name *

Email *

Organization / Institution *

City *

State *

Website

Listing Type *

Select one listing type for this submission. If you are both LOOKING FOR and PROVIDING expertise, please complete this form for one, and then submit an additional form for the second.

I am LOOKING FOR expertise

I can PROVIDE expertise

STELAR People Connector Directory

File Edit View Insert Format Data Tools Form Add-ons Help All changes saved in Drive

Comments Share

fx

The purpose of the People Connector Directory is to connect individuals looking for partners or tools for their ITEST proposals with those who can provide partnership or tools (e.g., a school district looking for a research methodologist, a community-based organization looking for an external evaluator). The information provided is publicly available and accessible via the STELAR website. You can get notified of additions to the Directory by clicking on 'Tools' and 'Notification Opportunities' above (you must sign in to a google account in order to access the Tools).

Note: STELAR and NSF do not endorse the credibility or expertise of any specific individuals on the compiled list.

Timestamp	First name	Last name	Email	Organization / Institution	City	State	Website	Listing Type	Type of Expertise	Expertise Details
14	9/8/2014 16:42:48	Anita	Krishnamurthi	akrishnamurthi@afterschoolallianc	Washington	DC	http://www.afterschoolallianc.org	I can PROVIDE expertise	Researcher, Informal education	Please reach out if you're looking for...
15	9/9/2014 9:07:53	Bonnie	Swan	bonnie.swan@ucf.edu	Orlando	Florida	http://education.ucf.edu	I can PROVIDE expertise	Evaluator, Researcher	Program Evaluation and Education...
16	9/9/2014 9:19:45	Cynthia	Tanaris	tanaris@pitt.edu	Pittsburgh	PA	http://www.ceac.pitt.edu	I can PROVIDE expertise	Evaluator, Researcher, Expertise in the development and...	Cynthia A. Tanaris, Ed.D., founder...
17	9/9/2014 12:09:42	Amy	Grack Nelson	agnelson@smm.org	St Paul	MN		I can PROVIDE expertise	Evaluator, Evaluation instrument	
18	9/9/2014 17:00:08	Troy	Sadler	sadlet@missouri.edu	Columbia	MO	http://education.missouri.edu	I can PROVIDE expertise	Evaluator	The ReSTEM Institute: Reimagining...
19	9/10/2014 18:56:16	Vega	Vanessa	vanessa@rockman.com	San Francisco	CA	www.rockman.com	I can PROVIDE expertise	Evaluator, Researcher	Can provide expertise on: evaluation...
20	9/16/2014 10:00:21	Kevin	Glass	glass@educationconnect.org	Litchfield	CT	www.educationconnect.org	I can PROVIDE expertise	Evaluator	We can provide both internal and external...
21	9/16/2014 13:14:04	Juan	Concepcion	rubricsolution@gmail.com	Manati	Puerto Rico	www.rubricsolution.com	I am LOOKING FOR expertise	Evaluator, Informal education	Proven educational STEM practice...
22	9/17/2014 15:21:28	Kristin	Bass	kristin@rockman.com	San Francisco	CA	www.rockman.com	I can PROVIDE expertise	Evaluator, Evaluation instrument	Rockman et al is an independent...
23	9/17/2014 10:39:14	Karen	Yanowitz	kyanowitz@astate.edu	Jonesboro	AR		I can PROVIDE expertise	Evaluator, Researcher	I have two ITEST grants and am ve...
24	9/18/2014 16:41:00	Jared	Ozga	jozga@wvcs.org	New York	NY	wvcs.org	I am LOOKING FOR expertise	Informal education site	Looking to forge partnerships with...
25	9/22/2014 15:26:32	Robinson	Robinson	ronrobinson@lewislatimer.org	Chelsea	Mass	www.lewislatimer.org	I can PROVIDE expertise	Informal education site	I can provide information on how to...
26	10/22/2014 16:12:12	Teresa	Reagan	treagan@ncat.edu	Greensboro	NC		I am LOOKING FOR expertise	Evaluator	We are searching for an external e...
27	11/12/2014 21:47:15	Aaron	Parker	Aaron.T.Parker@gmail.com	ASAN	Guam		I am LOOKING FOR expertise	Evaluator, Formal education	Looking for help putting together a...
28	2/17/2015 12:30:42	Jana	Craig-Hare	janach@ku.edu	Lawrence	KS	www.altrec.org	I can PROVIDE expertise	Evaluator, Researcher, Evaluation instrument	
29	2/17/2015 16:23:36	Jaclyn	Ocuppaugh	jo2424@tc.columbia.edu	New York	New York		I can PROVIDE expertise	Evaluator, Researcher, Evaluation instrument	

Stay in Touch!

Contact us: stelar@edc.org

Facebook: <https://www.facebook.com/stelarctr>

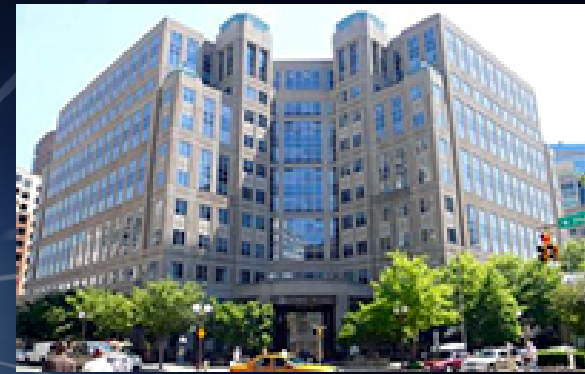
Twitter: https://twitter.com/STELAR_CTR

LinkedIn: <https://www.linkedin.com/groups/STELAR-Center>

Find resources: <http://stelar.edc.org/>

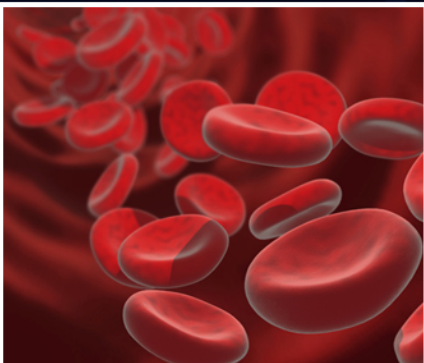


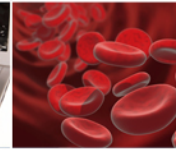
Welcome to...



Dear Colleague Letter:
**Enabling the Future of Making to Catalyze
New Approaches in STEM Learning and
Innovation**

Nov. 2016 Webinar





Overview of Webinar

- What are the criteria for an EAGER proposal
- What is Making
- Overview of Maker DCL
- Proposal submission
- Questions



WHERE DISCOVERIES BEGIN

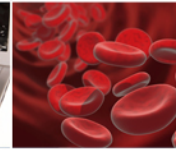


WHAT IS AN EAGER PROPOSAL?



What is an EAGER?

- Exploratory work in its early stages on untested, but potentially transformative, research ideas or approaches.
- “High risk-high payoff”
- Radically different approaches, new expertise, engages novel disciplinary or interdisciplinary perspectives
- Should not be used for projects that are appropriate for submission to “regular” NSF programs (many are listed on the next slide)
- To gain the most effective feedback, investigators are strongly encouraged to provide a two-page (or less) statement explaining the core idea of their projects.
- Submissions should begin with “EAGER: MAKER:” in the proposal title.
- Deadline date: December 15, 2016



Keys to Submitting an EAGER

- PI's must contact an appropriate NSF program officer prior to submission
- Project Description limited to 8 pages
- Clear statements on why the project is appropriate for an EAGER, why it does not fit into regular programs & why it is a good fit for EAGER (although not required, you can make a focused case under a head in the project description “Why an Eager?”)
- The box for “EAGER” must be checked on Cover Sheet
- Requests may be for up to \$300K & two years duration
- Award size will be consistent with the project scope



Other “regular” NSF program supporting Maker projects

- Advancing Informal STEM Learning (AISL) submission deadline November 8, 2016
https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf15593
- EHR Core Research submission deadline September 14, 2017
https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf15509
- Improving Undergraduate STEM Education: Education and Human Resources (IUSE: EHR) submission deadlines November 2, 2016 and January 11, 2017
https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf15585
- Research in the Formation of Engineers (RFE) submission deadlines January 25, 2017 and September 20, 2017
https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503584
- STEM + Computing Partnerships (STEM+C) submission deadline March 14, 2017
https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf16527
- Innovative Technology Experiences for Students and Teachers (ITEST) deadline August 2017 (new solicitation will replace the current one listed below)
<https://www.nsf.gov/pubs/2015/nsf15599/nsf15599.htm>



Other “regular” NSF program supporting Maker projects

- **NSF Small Business Innovation Research (SBIR)/
Small Business Technology Transfer (STTR)**

https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=504870

- **EHR: Improving Undergraduate STEM Education**

https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=505082

- **RESEARCH IN THE FORMATION OF ENGINEERS (RFE)**

https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=503584

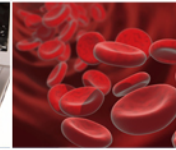
- **BROADENING PARTICIPATION IN ENGINEERING (BPE)**

https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=504870



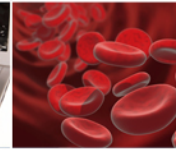
Critical Guides for Preparing an EAGER

- Maker DCL:
<https://www.nsf.gov/pubs/2015/nsf15086/nsf15086.jsp>
- Proposal and Award Policies and Procedures Guide:
https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf16001&org=NSF
(effective for current proposals, replaced by new PAPPG effective Jan. 2017)



What is Making?

- Making can be called creating, producing, crafting, shaping, tinkering, composing, and building.
- It covers many areas of interest and many skills, and projects often combine several of each.
- Making sits at the intersection of art and science, and at the crossroads of technology and design .



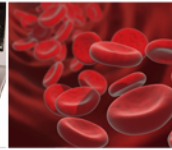
Key Qualities of Maker the Movement

- Digital transformative tools are used in many maker projects (but traditional tools are often present as well)
- Community aspect and emphasis
- The open-minded, action-oriented, creative Maker mindset
- Making, in pedagogical terms, is rooted in constructivism, a learning theory that highlights the notion of learning through constructing, both in terms of tangible and intangible objects and notions
- May integrate the arts and technology

Reference: <https://www.asee.org/documents/papers-and-publications/papers/maker-summit-report.pdf>



WHERE DISCOVERIES BEGIN



OVERVIEW OF MAKER DEAR COLLEAGUE LETTER



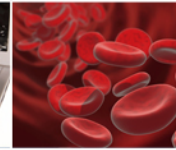
Dear Colleague Letter: Enabling the Future of Making to Catalyze New Approaches in STEM Learning and Innovation

- Elucidate the processes and potential benefits of learning, e.g. design thinking, in the *Maker* context.
- Leverage *Making* to develop and test its role in improving the effectiveness of formal and informal learning pathways for increasing retention and broadening participation in STEM for students and faculty.
- Explore new ideas and models of formal and informal STEM learning by leveraging existing knowledge in Making.



Dear Colleague Letter: Enabling the Future of Making to Catalyze New Approaches in STEM Learning and Innovation (continued)

- Investigate and test effectiveness of new approaches to design and innovation enabled by *Maker* spaces and practices.
- Enable new tools and knowledge for design and prototyping across all disciplines that can significantly increase *Making* capabilities.
- Further the understanding of innovation processes from prototypes through their transition to products that have greater societal and economic impact through enhanced marketability and large-scale market adoption.



DCL EAGER Proposal Submission

**Make sure your organization is
appropriately registered with
grants.gov OR Fastlane.nsf.gov**

Proposals are due Dec 15, 2016



Proposal Submission

- After you submit as PI, all proposals are ultimately submitted by your organizational representative (sometimes called SRO or AOR)
- If at all possible, use FastLane system
(<http://www.fastlane.nsf.gov>)
- DO NOT wait until the last minute (see two bullets above)
- All notifications will be available to you via FastLane



Where to Submit Proposals

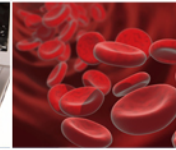
- NSF's FastLane:

<https://www.fastlane.nsf.gov/index.jsp>

- Grants.gov:

<http://www.grants.gov>

Note: Fastlane will check for required sections of proposals.



Where should you direct your inquiry?

Lead Program Officers:

- Erick C. Jones: ejones@nsf.gov
- Robert L. Russell: rlrussel@nsf.gov

Other cognizant program officers:

- Al Desena: adesena@nsf.gov
- Connie K Della-Piana: cdellapi@nsf.gov
- Monya Ruffin: mruffin@nsf.gov
- Ilumoka Abiodun: AILUMOKA@nsf.gov
- Rebecca Bates: RBATES@nsf.gov
- Eliot Paul Douglas: EDOUGLAS@nsf.gov
- Kamau Bobb: KBOBB@nsf.gov

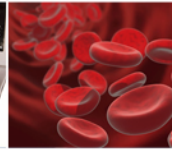
For general information, Program Assistant: Katelyn Schreyer: kschreya@nsf.gov

For issues with submitting your proposal: 1-800-673-6188 (7 AM – 9 PM Eastern Time)

Note: Don't worry, if you send your initial inquiry to the wrong place, your inquiry will be forwarded to the relevant Directorate. If you don't hear back within a day or two, please contact one of the Lead Program Officers or Katelyn Schreyen.



WHERE DISCOVERIES BEGIN



Questions?



WHERE DISCOVERIES BEGIN



Thanks for Participating!

We look forward to receiving your proposals.