



Iowa Governor's STEM Advisory Council Request for Proposals

STEM Businesses Engaging Students and Teachers (BEST)

Background

Executive Order Number 74 signed by Iowa Governor Terry E. Branstad on July 26, 2011, declared that science, technology, engineering, and mathematics (STEM) education should be strengthened as part of providing a world-class education, encouraging innovation and enhancing economic development in Iowa. The STEM Council's priorities for FY2017 include expanding the community of innovative, replicable STEM education models, known as Iowa STEM Businesses Engaging Students and Teachers (BEST). A total of eight STEM BEST models have been established over two years that are now on the developmental spectrum [<http://www.iowaSTEM.gov/STEMBEST>].

The STEM Council has designated a portion of the state legislative funding to support the establishment of six new Iowa STEM BEST models with the intention to fund one in each of the six STEM regions [<http://www.iowaSTEM.gov/regions>]. The overarching goal of STEM BEST is to unite the expertise of public and private sectors to strengthen the continuum from school to careers. Awarded applicants will become an Iowa STEM BEST model of the Iowa Governor's STEM Advisory Council and receive \$25,000 to be matched with local cost-share.

I. Introduction

A hallmark of Iowa STEM education is the connection of classroom learning to meaning beyond the school walls. A consensus definition for STEM is instrumental in guiding programs and proposals under the STEM Council:

(STEM is) "...an interdisciplinary approach to learning where rigorous academic concepts are coupled with real-world lessons as students apply science, technology, engineering and mathematics in contexts that make connections between school, community, work and the global enterprise enabling the development of STEM literacy and with it the ability to compete in the new economy."

—Tsupros, N., Kohler, R., & Hallinen, J. (2009). STEM education: A project to identify the missing components. Intermediate Unit 1: Center for STEM Education and Leonard Gelfand Center for Service Learning and Outreach, Carnegie Mellon University, Pennsylvania.

The STEM Council has defined the STEM BEST model for realizing this STEM vision. Overarching guidelines are provided for consistency and to assist proposers, though ample flexibility in design is permitted and welcome to allow for the organic development of STEM BEST programs matching local strengths, challenges and resources.

Note: Recipients of STEM Council awards for STEM Redesigned Learning Environments (RLE) or participants in the STEM Council's Seal of Approval or any other Council program are welcome to propose STEM BEST models, incorporating evidence of success with other programs to strengthen this proposal.

II. STEM BEST Characteristics

The heart of the STEM BEST model is the centrality of business or industry partner(s) in defining curriculum and work space. Topics and projects are driven by the needs of the business partner(s) in collaboration with educators. Learning spaces are separate and distinct from the standard school environment—ideally at the business site. Also, STEM BEST models are open to K-12 applicants.

Three Key Attributes of the STEM BEST Model

- o **Education Driven by Industry Need**
 - ✓ Real-world industry-led and/or student-led projects that connect students to industry knowledge base
 - ✓ Relevant experiences driven by local need
 - ✓ Regional schools or district clusters collaborate with business and industry to maximize opportunities for students in a cost-effective model
- o **Rigorous, Relevant and Dynamic STEM Curriculum**
 - ✓ Instructional strategies foster creativity, innovation and the “entrepreneurial mindset” through a collaborative, interdisciplinary and problem-based approach
 - ✓ Driven by 21st century skills informed by current and future workforce needs
 - ✓ Accounts for all learners, especially underrepresented populations
 - ✓ Mastery of Iowa Core demonstrated through a competency based approach
- o **Authentic Partnerships**
 - ✓ STEM businesses and organizations
 - ✓ Educational institutions (clusters of schools and/or districts are encouraged)
 - ✓ Higher education institutions and government agencies provide support

Top quality STEM BEST proposals will describe a cohesive plan that attends to the three key attributes, including:

- ✓ Plan for the development of a rigorous and relevant STEM curriculum (**Appendix A**)
- ✓ Organized, well-represented partnership team demonstrating a sustained commitment to the program through various levels of engagement (**Appendix B**)
- ✓ A plan for professional development, utilizing business professionals and educational institutions (**Appendix C**)
- ✓ Description of alignment to current and future district goals related to STEM
- ✓ Financial model
- ✓ Evidence of effectiveness

III. Eligibility

All Iowa private and public school districts and buildings serving students in any of grades K-12 are eligible to apply. **Clusters of schools and/or districts are encouraged.**

IV. Timeframe and Selection Process

- | | |
|------------------------------|---|
| June 1, 2016: | Request for Proposal Release |
| June 29, 2016, 2:30 PM: | Proposal Development Session, STEM School+Business Innovation Conference
Register now at www.iowaSTEM.gov/school-business-conference |
| September 23, 2016, 5:00 PM: | <u>Proposal Due</u> |
| September—October 2016: | Proposal Review
All proposals submitted in accordance with this RFP will be reviewed by a Selection Committee consisting of STEM Council members and/or Regional STEM Advisory Board members. The committee may opt to conduct site visits as part of their proposal evaluation process. |
| November 2, 2016: | Award Recipients Announced
The STEM Council Executive Committee will determine final awardees based upon the recommendation of the Selection Committee. The recipients will be rated according to the criteria described in this document. Qualitative factors related to geography, demographics and other non-numeric considerations may factor into decisions as well. |

Winter—Spring 2016-17: **STEM BEST—Program Planning, implementation**
Recipients must fully expend the grant funds by June 30, 2017.

Summer 2017: **Self-Assessment and Fall Planning** (template to be provided)

V. Funding and Cost Share

The STEM Council commits \$25,000 each for six innovative STEM BEST model proposals. [*The STEM Council reserves the right not to fund any proposals where standards of excellence are not met.*] **STEM award funds must be fully expended in FY2017** (by June 30, 2017). A matching investment of \$25,000 in new funding or as in-kind support is required of the applicant.

- **Allowable Expenses for STEM BEST ~ up to \$25,000**
 - **Curriculum Development**
—Project proposal may include costs for curriculum development, working closely with business and industry partners.
 - **District Team Site Visits**
—Proposal may include travel expenses for district teams or designees to visit one or more exemplary BEST school model(s) to benchmark and research key criteria.
 - **Participation in statewide STEM BEST convening or similar program**
 - **Needs Assessment**
—Community surveys of students, parents, business and industry
 - **Direct and Indirect Costs**
—Facility development, technology, liability and insurance
 - **Professional Development (PD) for STEM teachers and partners**
—Proposal may include costs to provide training in collaborating with business professional partners in the use of project-based learning, career education and STEM professional development (see Appendix C).
 - **Coordinator and Business Development Support**
—Project coordinator, staffing.
 - **Other unforeseen costs may be allowed subject to approval**
—Questions on budget or other aspects of this RFP may be directed to Info@IowaSTEM.gov. All questions/answers will be publicly posted at www.IowaSTEM.gov.
 - **Cost sharing is required—please detail amount, source(s) and uses.**

VI. Proposal Content Requirements

Format

Page Limit: 9 (This does not include cover or commitment letters.)

Spacing: Single-spaced

Margins: Minimum of 1-inch margins

Proposal Components:

- ✓ A singular proposal for the school or district or cluster must provide:
 - Cover Form (with each superintendent's signature) (Appendix G)
 - Description of community, district(s) and school(s) demographics (1 page)
 - Description of current STEM education in applying school(s) or district(s) (1 page)
- ✓ Evidence of plan to implement elements #1-8 as described below (6 pages)
- ✓ Statement of school/district/cluster goal or vision with the proposal's pilot implementation (Summer 2017) (1 page)
- ✓ Commitment Letters defining the role of (not included in page count):
 - _____ Area Business Partner(s)
 - _____ Higher Education Partner(s)
 - _____ Other relevant contributors: Community, Extension, Nonprofit, etc.

VII. Proposal Elements 1–8

STEM BEST

1.	<p>STEM Curriculum: Proposal demonstrates plans to create and implement an integrated business and industry driven STEM curriculum, aligned to Iowa Core with a focus on personalized, deeper learning to students in any of grades K-12. Curriculum proposal includes elements to increase participation of underrepresented groups in STEM (females, ethnic/racial minorities, students with disabilities) and proposes the integration or merging of disciplines beyond STEM to include the arts and culture when possible and appropriate. See Appendix A for specific descriptions of a STEM curriculum.</p>
2.	<p>Serving underrepresented student population: Proposal explains how it will recruit students underrepresented in STEM (females, students of ethnic or racial minority groups and students with disabilities).</p>
3.	<p>Community Partnerships: Proposal provides evidence (including letters of commitment) of strong partnerships and collaboration with:</p> <ul style="list-style-type: none"> a) Public and Private Sector Business and Industry Partner(s) b) Economic and Workforce Development Groups (<i>optional</i>) c) Higher Education Partner(s), including community college, private college, university d) Other Relevant Contributors, including Intermediaries, Extension, etc. <p>Commitment letters clearly discuss the role(s) each partner will play. See Appendix B for specific descriptions of community partnerships.</p>
4.	<p>Professional Development: Documentation of team training plan, which includes commitment to engage business and education professionals in collaborative curricular and pedagogical approaches. Professional development must include both business partner support in working with youth, as well as educator support in linking content to industry needs. See Appendix C for professional development description.</p>
5.	<p>Sustainability Plan: Proposal describes STEM BEST alignment to current district(s) goals and improvement efforts. Proposer should also include information about school district(s) demographics, student enrollment and demographic targets for the STEM BEST program and program leadership structure. Detail the continuation of the program beyond the grant period, including willingness to function as a model for others.</p>
6.	<p>Financial Model: Proposal includes detailed budget, including assurances that the school district(s) have/has received commitments of sustained and verifiable fiscal and in-kind support from regional education and business entities. Plan should include information aligned to planning and implementation allowables as outlined in Part IV. Requested amount needs to be cost-efficient for the scope of work proposed and cost-sharing must be documented.</p>
7.	<p>Model/Disseminate: Proposer should commit to and list tactics for promoting the model to other districts and partners in the region, to serve as an advocate and to disseminate related information.</p>

8.

Self-Evaluation: Proposer is responsible for evaluation in consultation with the STEM Council. (A template will be provided.) Final award recipients will:

- Manage project outcomes and deliverables with the support of the STEM Council throughout the program period
- Execute ongoing monitoring of the project implementation and work with the STEM Council
- Collect observational and qualitative data through site visits, classroom observations, administrator and faculty interviews, and student and parent focus groups
- Provide administrative data which may include but is not limited to the following:
 - **Student Targets**
 - Professional skills
 - Attendance
 - Client feedback
 - Feedback from internship sponsors (if opted)
 - Participation of underrepresented populations
 - **Operational Targets**
 - Enrollment
 - Number of mentors and business partners
 - Curriculum
 - Budget
 - **Customer Satisfaction Targets**
 - Students
 - Parents
 - Business Partners/Mentors
 - Teachers
 - Administrators and Counselors
 - Other stakeholders and partners
 - **School System Impact Targets**
 - Instructional changes
 - Curriculum
 - Assessments
 - Attendance
 - Student Achievement

TWO years of self-evaluation reporting will be required of award recipients, given that year two will be a full implementation year. June 2017 and June 2018 reports required.

APPENDIX A: STEM BEST Curriculum

Iowa STEM BEST programs will inspire innovative, lifelong learners within interdisciplinary environments, stimulating constructive connections between their life and the real world. A robust STEM curriculum that is both relevant and dynamic and focused on personalized, deeper learning will include:

- Mastery of STEM focused, business-driven, academic curriculum, including integration into Iowa Core subjects
- Self-directed learning and competency-based education pathways¹
- Reformed instructional strategies and project-based learning
- Focus on the Universal Constructs²
 - Critical thinking

¹ [STEM Learner Readiness for Post-Secondary and Career Committee](#), prepared for Advisory Council, 2011.

² http://educateiowa.gov/index.php?option=com_content&view=article&id=2089

- Complex communication
- Creativity
- Collaboration
- Flexibility and adaptability
- Productivity and accountability
- Authentic assessment
- Career and college readiness as key outcome
- Integration of the arts and culture curriculum when appropriate

Successful models of Iowa STEM BEST engage business, economic and workforce development, and higher education in curriculum development through a process called rapid prototyping. This process, based off of standard industry practice, allows for multiple, quick iterations to address changing, local needs. Curriculum development via rapid prototyping, as well as academic strands (engineering, healthcare, entrepreneurship, etc.), provides an opportunity for public and private sector partners to engage with students through mentorship, projects, speakers, instructors and internships.

Overall, successful STEM curriculum must be academically rigorous, inquiry and problem-based, real-world, competency-based and incorporate academic and career-related knowledge and skills.

APPENDIX B: Community-Based Partnerships

The challenges faced by today's schools are numerous and complex. Effective partnerships are a proven solution to these mounting challenges and can bring relevance and rigor to students' learning environments. In order for partnerships to be successful, all stakeholders must be focused and committed. All partners must be willing to invest the time, energy and resources to learn about each other's needs, to understand the issues and to build a trusting relationship. Partners must be willing to commit to long-term engagement and advocate for the collaboration and its desired outcomes yet be flexible to optimize efficacy.

Potential partners described here include business and industry, community college intermediaries, higher education, extension, economic and workforce development groups, and chambers of commerce along with the STEM Council's Regional STEM Manager Network, which can be found [here](#).

Local and Regional Business Partners

As the U.S. Chamber of Commerce's Institute for a Competitive Workforce states, "The business community is the number one consumer of the public education system and therefore must be an involved and engaged stakeholder in the education of America's children." Businesses success depends on a well-educated and adaptable pool of young talent emerging from America's high schools and colleges to maintain stability and growth. The resources, skills and knowledge businesses and their employees bring to the table have broad significance for ensuring young adults reach their full potential. As it might be expected, there is no single framework for a school-business partnership. Partnerships between education and the business community can:

- Provide work-based learning experiences that transfer knowledge and skills between the classroom and the work setting
- Help schools build career cultures that empower students
- Help educators align curriculum to business needs
- Build meaningful relationships with mentors
- Provide tours, speakers and facilities
- Provide funding and equipment for classrooms and workspaces

Iowa STEM BEST schools must build meaningful partnerships with community business partners as a mechanism to ensure career and college readiness for all of Iowa's young people. One measure of success will be an increase in the number of Iowa students who can demonstrate their qualifications on the National Career Readiness Certification³ exam. In collaboration with the Iowa Workforce Development, the Skilled Iowa initiative seeks to promote the NCRC as an "industry-recognized, portable, evidence-based credential that certifies essential skills needed for workplace success."⁴

Economic and Workforce Development Partners

A compelling body of research links primary and secondary education to economic development and growth. The foundation of

³ <http://skillediowa.org/>

⁴ [Skilled Iowa Report](#), 2012, Iowa Workforce Development in Partnership with ACT.

STEM BEST programs is the connection between secondary education and local economic and workforce needs. Successful implementation requires districts to identify local workforce needs as a driving force for curriculum, course strands offered, program focus, etc. As workforce needs change, districts must continue to evaluate their programs to reflect these trends.

School District Clusters

To provide students with experiences and opportunities that are sustainable, school districts are encouraged to investigate a shared STEM BEST program (or cluster of school districts). Examples of cluster partnerships were awarded previously and can be accessed at www.iowaSTEM.gov/STEMBEST. Collaboration across school districts fosters the sharing of best practices and a team approach to student achievement, while at the same time maximizing business and community resources.

Higher Education Partners

The role of higher education in the STEM BEST model may most prominently be in the form of conversations and guidance. Post-secondary enrollment, concurrent enrollment and career academies serve both rural and urban schools. How these factor in to the BEST experience will be an important consideration. Additionally, partnership between institutions of higher education and STEM BEST programs may include exploring new strategies to strengthen ties and to extend learning opportunities for all students. Higher education partners may wish to extend dedicated professional time (FTE) to work with the applicant district to provide professional development, curricula development or business engagement. Direct higher education resource professionals include the STEM Council's Regional STEM Managers [<http://www.iowaSTEM.gov/regions>], who can provide access and links to higher education representatives and the Community College Intermediaries who currently coordinate regional placements for job shadows, internships and industry tours among other career-focused programming. A list of statewide intermediary contacts can be found [here](#).

APPENDIX C: Professional Development

Professional development for the STEM BEST model should encourage and offer opportunities for business and education professionals to work alongside each other in an interdisciplinary, community-driven and problem-based approach. *Professional development must include both business partner support in working with youth, as well as educator support in linking content to industry needs.*

Programs that engage educators in industry-based learning opportunities allow them to see workplace skills and how they can be integrated into real-world, problem-solving coursework to enhance professional development. Interdisciplinary teams, including business and education professionals, should work together to embed industry experiences and best practices into curriculum and pedagogy.

APPENDIX D: Integrated STEM Curriculum – Personalized, Deeper Learning

Iowa STEM learning environments will inspire innovative, lifelong learners within interdisciplinary environments, stimulating constructive connections between seemingly abstract concepts and encouraging insightful leadership via technology-rich, real-world academia anchored by global literacy. A robust STEM curriculum, focused on personalized, deeper learning will include:

- Mastery of STEM focused, academic curriculum, including integration into non-STEM subjects
- Self-directed learning and competency based education pathways⁵
- Reformed instructional strategies and project-based learning
- Focus on the Universal Constructs⁶
 - ✓ Critical thinking
 - ✓ Complex communication
 - ✓ Creativity
 - ✓ Collaboration
 - ✓ Flexibility and adaptability
 - ✓ Productivity and accountability
- Authentic assessment

⁵ [STEM Learner Readiness for Post-Secondary and Career Committee](#), prepared for Advisory Council, 2011.

⁶ http://educateiowa.gov/index.php?option=com_content&view=article&id=2089

- Career and college readiness as key outcome
- Integration of the arts and culture curriculum when appropriate

Integrated STEM teaching and learning makes explicit what is too often implicit in how experts across STEM disciplines construct, apply and create knowledge. First, an integrated STEM curriculum will help shape student decision-making related to career choice and civic life. An integrated approach to the STEM and non-STEM disciplines will result in a **re-imagined use of time in school**, allowing students to engage with core content in novel and deeper ways. Students will be encouraged to deploy tools and technologies that build local system capacity while retaining the perspective of global citizenry. The curricular integration that is closely tied to STEM studies “assists students to transfer knowledge, helps them to focus on big ideas, and increases motivation to learn.”⁷

Second, an integrated STEM curriculum will facilitate **practices of global citizenry** on issues of deep complexity. The science, social science and engineering communities have documented many of the grand challenges⁸ of our time (i.e., energy, food, water and cyber security), which will require sustained effort over generations. Finding answers to such ill-structured problems will require intentional cross-curricular links and thoughtfully constructed concepts that reinforce the challenges facing present and future generations. Students will require learning spaces that embrace failure (i.e. experimentation and design) as an important aspect of their academic experience. They will need to develop collaborative skills that mesh physical and virtual environments. Increasingly, students are learning and working in hybrid spaces, “third spaces,”⁹ that require unique tools and skill sets.

Finally, it is not enough to provide even the best “in-class” or “stand alone” curriculum. Pedagogical success requires that students **exercise agency (are empowered)** to define the question, test ideas, choose the appropriate resource and develop solutions as a way of understanding systems (physical, natural, virtual) and their relations. Students must be provided space, resources and instructional scaffolds that help them develop learning strategies to support their inquiries.

APPENDIX E: **STEM BEST PROPOSAL SCORING RUBRIC**

CRITERIA	TOP SCORE	COMMENTS
<p>1) STEM Curriculum: Proposal contains evidence that the STEM BEST program will offer a robust, integrated, business driven STEM curriculum with a focus on personalized, deeper learning to students, incorporation of the arts and culture aspects when appropriate.</p> <p>The following key components are addressed:</p> <ul style="list-style-type: none"> ✓ Driven by 21st century skills informed by current and future workforce needs ✓ Mastery of Iowa Core demonstrated through a competency based approach ✓ Instructional strategies foster creativity and innovation through a collaborative, interdisciplinary, problem-based approach <p><i>Reviewers will consider exemplary deployment of key components with a clear link to their connection with innovation and economic interest in the local area, as described in Appendix A.</i></p>	15 pts	

⁷ Rennie, L. Veville, G. Wallace, J. (2012). Knowledge that Counts in a Global Community: Exploring The Contribution of Integrated Curriculum. New York, NY: Routledge Taylor and Francis Group.

⁸ Grand Challenges in Engineering, <http://www.engineeringchallenges.org/>

⁹ Designing Blended Learning Space to the Student Experience, Andrew J. Milne Tidebreak, Inc.

<<http://net.educause.edu/ir/library/pdf/PUB7102.pdf>>

<p>2) Serving underrepresented student population: Explain how your proposal will recruit students underrepresented in STEM (females, students of ethnic or racial minority groups and students with disabilities)</p>	10 pts	
<p>3) Community Partnerships: Proposal provides evidence (including letters of commitment) of strong partnerships and collaboration that include all of the following:</p> <ul style="list-style-type: none"> a) Public and Private Sector Business Partner(s) — 5 pts. b) Economic and Workforce Development Partner(s) — 5 pts. c) A physical location amenable to ready access to business and industry professionals and facilities — 5 pts. d) Other partnerships, e.g., higher education, nonprofits — 5 pts. <p><i>Reviewers will look for genuine partnerships inclusive of key stakeholders. Evidence of enthusiastic partner commitment should be demonstrated through letters defining specific, ongoing roles.</i></p> <p><i>The partnerships should include involvement in curriculum development and instructional design including business-sponsored projects, mentoring, accelerated learning opportunities, etc. as described in Appendix B.</i></p>	20 pts	
<p>4) Financial Model: Detailed budget and assurances that the school(s) have/has received commitments of sustained and verifiable fiscal and in-kind support from regional education and business entities. Budgeted from award date November 2015 to June 30, 2016. Request is cost-efficient for the scope of work proposed.</p> <p><i>Rubric score will be dependent upon amount and type of in-kind and financial support from regional industry and educational partners.</i></p>	10 pts	
<p>5) Sustainability Plan: Proposal clearly aligns STEM BEST program to district goals and demonstrates commitment to involve underrepresented populations.</p>	10 pts	
<p>6) Professional Development: Documentation of a training plan which prepares business and education professionals to implement STEM BEST program.</p> <p><i>Top points awarded for proposals which include evidence of strong industry professional/teacher engagement and commitment to an integrated STEM curriculum as described in Appendix C.</i></p>	15 pts	
<p>7) Model/Disseminate: Proposer should commit to and list tactics for promoting the model to other districts and partners in the region, to serve as an advocate, and to disseminate.</p>	10 pts	
<p>8) Self Evaluation: Proposal ensures a competent, comprehensive internal program evaluation, both qualitative and quantitative, in cooperation with STEM Council.</p> <p><i>Top points awarded to proposals that give clear assurance of capacity and expertise to evaluate, in cooperation with the STEM Council evaluation process.</i></p>	10 pts	
TOTAL POINTS		<i>(100 Points Possible)</i>

APPENDIX F: RESOURCES

STEM School Resources
Hewlett Foundation focuses on “ Deeper Learning ” as a strategy of education reform. See also the Strategic Plan Summary of Hewlett’s Educational Program.
North Carolina STEM Learning Network has compiled a list of STEM attributes, and a set of STEM School Rubrics to evaluate STEM schools at the elementary, middle and high school levels.
The Ohio STEM Learning Network advocates five “ Platform Design Principles ” for STEM schools and hubs.
EdWorks , a subsidiary of KnowledgeWorks , advocates for a STEMLab High School model that emphasizes Problem Based and Inquiry Learning. FastTrack is an early college model that promotes career and college readiness.
P-TECH High School in New York City is garnering national attention as a model partnership between business, K-12 and Higher Ed. The Iowa site visit report highlights of team learning.
“ STEM Pathways to College and Career Schools, A Development Guide ” is intended to help education leaders at the school and college levels, and business leaders in IT and other sectors, get started on the collaborative process of designing and building a STEM Pathways to College and Careers school (STEM-PCC school).
The Arizona Science Foundation STEM Network created The STEM Immersion Guide , which “offers a roadmap to establish project-based STEM instruction, leadership development and community support. It was created to provide practical direction that can empower teachers and administrators, schools and districts.”
Lynch, Sharon J; Behrend, Tara; Burton, Erin Peters; “ Inclusive STEM Focused High Schools: STEM Education Policy and Opportunity Structures ”. Paper prepared for the NARST 2013 Annual International Conference in Puerto Rico, April 6-9, 2013.

APPENDIX G: Resources for STEM BEST

IOWA STEM BEST ANALOGS
Iowa STEM BEST http://www.iowaSTEM.gov/STEMBEST
Northland CAPS http://www.northlandcaps.org/s/1625/start.aspx
Waukee APEX http://www.waukeeapex.org/
Park City, UT CAPS http://caps.pcschools.us/
Minnetonka CAPS http://minnetonka.k12.mn.us/vantage
Professional Development Resources (This list will be expanded on the Iowa STEM BEST website as P.D. opportunities are identified. Please send other relevant STEM BEST supportive models to Info@iowaSTEM.gov)

Blue Valley CAPS Summer Huddle

<http://www.bvcaps.org/s/1403/index.aspx?sid=1403&gid=1&pgid=632>

Iowa STEM Teacher Externships

<http://www.iowastem.gov/externships>

Research Experiences for Teachers at Iowa State University

<http://www.cbirc.iastate.edu/education/precollege/ret/>

STEMInnovator Institute at the University of Iowa

http://www.jacobsoninstitute.org/stem_program_institute_2014.html

Additional Resources

(This list will be expanded on the Iowa STEM BEST website as resources are identified. Please send other relevant STEM BEST supportive resources to Info@IowaSTEM.gov)

[P-TECH High School](#) in New York City is garnering national attention as a model partnership between business, K-12 and Higher Ed. The Iowa [site visit report](#) highlights of team learning.

“[STEM Pathways to College and Career Schools, A Development Guide](#)” is intended to help education leaders at the school and college levels, and business leaders in IT and other sectors, get started on the collaborative process of designing and building a STEM Pathways to College and Careers school (STEM-PCC school).

The [Arizona Science Foundation STEM Network](#) created [The STEM Immersion Guide](#), which “offers a roadmap to establish project-based STEM instruction, leadership development and community support. It was created to provide practical direction that can empower teachers and administrators, schools and districts.”

Business Engagement

<http://blogs.edweek.org/edweek/marketplacek12/Business%20Engagement%20in%20Education%20FINAL.pdf>

<http://www.project10.info/files/School-BusinessGuidingPrinciples.pdf>

Project Lead The Way: Partnership Team Guide

http://storage.pardot.com/82012/41280/PLTW_Partnership_Team_Guide_2_.pdf

APPENDIX G: COVER FORM

School(s) or District(s) _____

District Superintendent(s) _____

Project Director _____

Lead Contact Information (Project Director unless stated otherwise)

Address: _____

Phone: _____

Email: _____

Statements (to be initialed by District Superintendent(s))

_____ I agree to a Selection Committee site visit as a component of the Review Process. Members of the selection committee may conduct site tours, interview relevant school and community leaders or observe brief proposal presentations by students and staff.

_____ If selected, the school(s) agree to conduct, in consultation with the STEM Council, a thorough evaluation throughout the term of the program. The evaluation will abide by a template provided by the Council.

_____ If selected, the school(s) agree to conduct, in consultation with the STEM Council, will reference itself as a STEM BEST model, adhere by the STEM BEST brand, and participate with the STEM Council Communications Manager in communications strategies and media relations around this award.

Items Included in Proposal:

_____ Cover Form

_____ Proposal (limit 9 pages not including Cover or Commitment letters)

_____ Additional Supporting Documents

Please address questions to Info@IowaSTEM.gov (All questions/answers will be posted at www.IowaSTEM.gov.)

Submit proposal by September 23, 2016, 5:00pm to <http://www.IowaSTEM.gov/STEMBEST/proposal>.