

MiSTEM Advisory Council Grant Technical Assistance

December 16, 2019

The Skype connection information for this meeting is:

Conference ID: 853833098

[Join from PC, Mac, Linux, iOS or Android](#)

Telephone: Dial: +1 248 509 0316

- MiSTEM Advisory Council makes specific funding recommendations
 - Align with state's academic standards
 - STEMworks Certified program
 - Provides:
 - project-based experiential learning
 - student programming, or
 - educator professional learning experiences
 - Represent all network regions
 - Represents at least 1 program in the following areas:
 - Robotics
 - Computer science or coding
 - Engineering or bioscience

- Council commissioned a review of the grant program
 - CEDER report
- Council priorities from those recommendations:
 - equitable distribution of funds (formula grant)
 - role of the regional directors
 - implementation of the statewide STEM strategy
 - outcomes (based on needs) focused

- **Formula grant based by region**
- Consortium applications based on common education and workforce needs will be recommended for funding
 - Network Directors convene education and workforce stakeholders by region to determine common needs, alignment with STEMworks program(s), recommend fiscals
 - Network maps common needs to form consortia
 - Submit consortia proposals to Council
 - Council recommends consortia to move forward for funding
 - **Consortia work plan proposals aligned to statewide STEM strategy are submitted/modified/approved**

STEMWorks Consortium Applications/Fiscal Agents

- ASU Modeling – Oakland Schools
- Camp Invention – Macomb ISD
- Cereal City Science – Eastern Upper Peninsula ISD
- Code.org – Grand Valley State University
- Engineering Is Elementary – Traverse Bay Area ISD
- FIRST Robotics – Macomb ISD
- Great Lakes Stewardship Initiative – Copper Country ISD
- Imagine Math – Alcona Montmorency Alpena ISD
- Math Recovery – Northern Michigan University
- Mi-STAR – Michigan Technological University
- NGSX – Washtenaw ISD
- Phenomenal Science – Oakland Schools
- Project Lead the Way – Kalamazoo RESA
- Robotics Education & Competition Foundation – Huron ISD
- STEM Equity Pipeline – Shiawassee RESD
- Ten80 – Washtenaw ISD

- Consortium Mapping Complete: December 4, 2019
- Awardees recommended to MDE: December 15, 2019
- Consortium Application available in MEGS+:
December 15, 2019
- Technical Assistance Meeting: December 16, 2019,
3:00-4:00 pm on Skype
- **Consortium Applications Complete: January 30, 2020**
- **Grant Expenditure Period: October 1, 2019 - September 30, 2021**

Application Walk Through

- At least one:
 - MiSTEM Network Region
 - LEA/ISD [eligible to receive state school aid dollars]
 - Community Partner
 - Must be a partner that is different from a LEA/ISD
- List of districts, ISDs, IHEs, workforce developers, economic developers, community organizations, regional employers, and/or business associations, etc.
 - Organization
 - Point of Contact
 - Role within the Project

- Each partner must submit a letter of support/commitment that consists of:
 - Statement of commitment/support
 - Why, what, how support will be represented [plan of work]
 - How support/commitment aligns to the pillars
 - Discuss the importance of this work as part of the STEM ecosystem

Timeline	Activity/Task Description	Cost	Staff/Partner Responsible	Outcome / Measure of Success
----------	---------------------------	------	---------------------------	------------------------------

- Address number of teachers and/or students proposed to be served

Address equity issues, including clear consideration of marginalized, historically underrepresented or historically underserved populations

- Need Statement Components:
 - Focus on one issue/topic,
 - Uses data and comparative statistics,
 - Connects to qualitative data, and
 - Highlights the gap that is being addressed
- Consortium members provide the key data
 - Upload any relevant data sources
 - Needs statements submitted initially will be shared with fiscals

Sample Needs Statement

- This is a quality starting point—would build on with summary statements and official data from across the consortium.

After reviewing regional data; most district mathematics scores in the region fall below the state average on the MSTEP and PSAT/SAT. -

Data

Elementary mathematics scores show the largest gap. - **One**

Issue/Topic

We are choosing to focus on elementary mathematics because a solid foundation in mathematics at this level is a strong predictor of future mathematics achievement and success. - **Gap that is being addressed.**

Workforce development indicated that mathematics literacy is a key need for employment in the region. - **Qualitative Data**

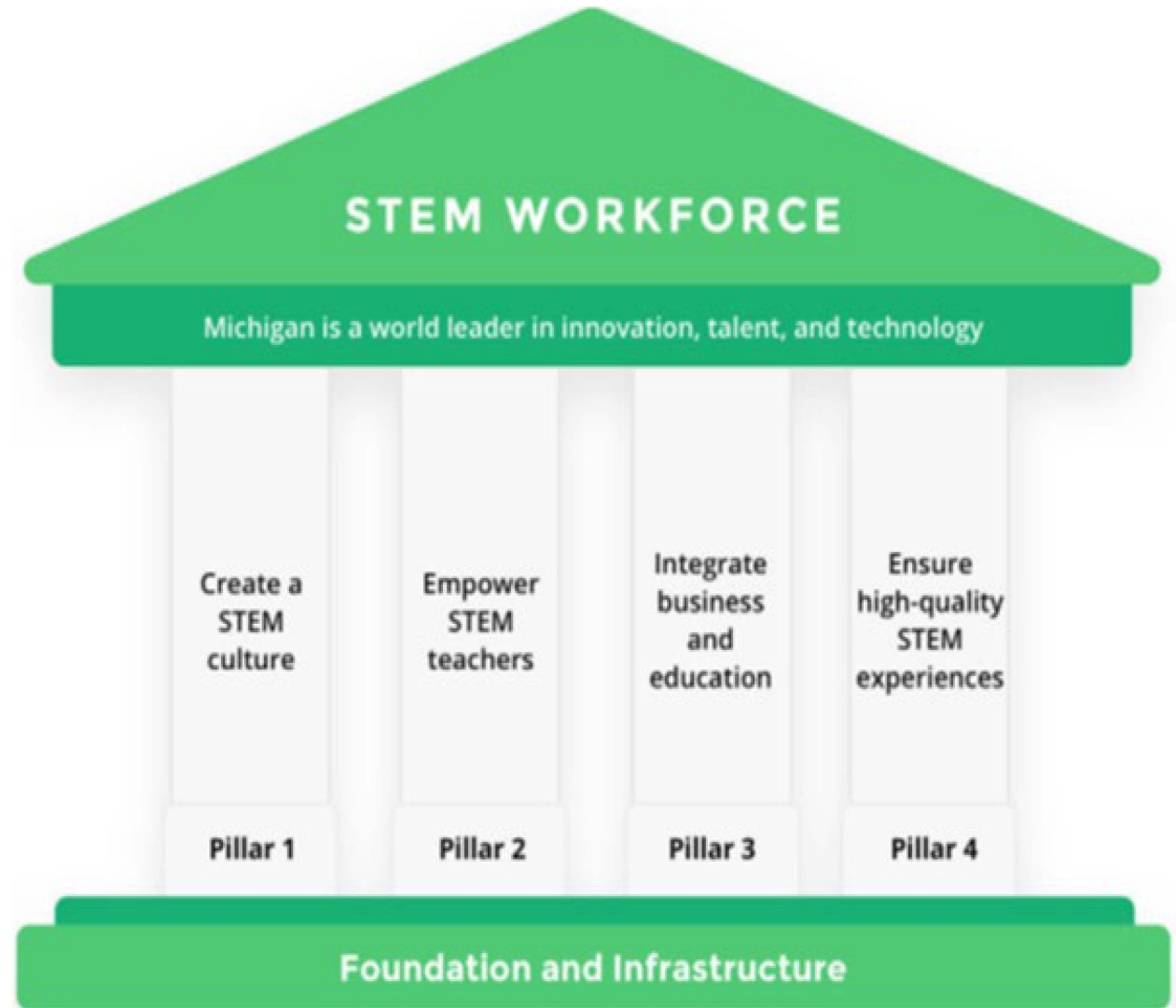
- Primarily looking for a description of how the selected STEMworks program addresses the needs outlined
 - the STEMworks program may not meet all of the needs outlined
- Compliance check with the law
 - Majority of time spent
 - Program focus area
 - “other, please describe”

- Must address:
 - All 4 Pillars
 - Sustainability and Capacity Building
 - Role of the MiSTEM Region Director
 - Michigan Academic Standards
- Plan of Work
 - Reference supporting materials, upload in MEGS+

Timeline	Activity/Task Description	Cost	Staff/Partner Responsible	Outcome / Measure of Success
----------	---------------------------	------	---------------------------	------------------------------

> VISION STATEMENT

Every student experiences phenomenon- and problem-based learning that intentionally promotes connections to the socio-cultural contexts in which they live and grow.



Pillar 1 – Create a STEM Culture - Strategies

- Whole Child, Whole School, Whole Community
- Increase understanding for all that STEM is an interdisciplinary and inclusive exploration for career pathways
 - Support a variety of learning opportunities, pathways, and career explorations towards STEM fields in multiple settings (everyday settings & family activities, designed informal settings, classroom instruction, and out-of-school programs).
 - Family engagement evenings or weekend events
 - Tours of community partner facilities (for families)
- Media Campaign – Message of universal needs
 - Showcase student's development of 21st Century skills and building a STEM identity
 - Promote what high-quality STEM Programs are and what the need is for them (articles, videos, etc.)
 - Awareness of STEM opportunities as an integral part of education and industry for shareholders
 - Prioritize STEM learning as a mindset to be integrated everyday into classroom instruction
- Other?

- In addition to the STEMworks program requirements
 - Recruitment and retention strategies for equity
 - Plan for bringing on all schools/educators
 - Build schoolwide systems for supporting educators, teams
 - Professional Learning Networks for peer support, mentoring, coaching, and lead educator opportunities
 - Partnerships with industry experts
 - Badging/Micro-Credentialing/alternative routes to certifications
 - Educator Externships
 - Administrator support for evaluation process
 - Access to further opportunities to learn
- Other?

- Career Awareness, Exploration, and Preparation – MI Career Development Model
 - Tech incubator night
 - Career fairs, co-op visits, job shadows, internships, externships
 - Business and community partners act as mentors
 - Industry credentials embedded and on transcripts
 - Career epilogos with business partners
 - Partners volunteering, funding, and providing projects/problems
 - Business partners visit workshops on Admin/PTA day and emphasize 21st century skills
 - Connect employee engagement and volunteer programs at businesses to educators
- Other?

Pillar 4 – Ensure High Quality STEM Experiences

- Gather student growth, proficiency, and perception pre/post data
- Host facilitator retreat for high quality consistent implementation
- Authentic performance experiences
- Integrate relevant industry technology
- Hands-on, problem-based, authentic, engaging, and experiential
- Linked to students and their communities to increase relevancy and sense of place
- Utilize industry and other community partners as resources for learning
- Create value for shareholders by providing spaces for authentic career exploration and problem solving where students also contribute to the learning of the community partners
- Other?

- Complete the budget in MEGS+
- Activities should take place between October 1, 2019 and September 30, 2021
 - Mid-project report due for carryover requests (prior to November 1, 2020)
- Community support should be visible in local agency share of the budget and plan of work chart
- No more than 5% for indirect costs to the fiscal
- Reflect anticipated expenses associated with data collection requirements

- Description of the expertise of the team implementing
- Capacity of the fiscal
 - Manage the project
 - Organize the work
 - Meet the deadlines
- Upload any supporting materials into MEGS+

- Collect Participation and Activity Data
- Assess strengths and limitations of the interventions
- Impact evaluation
- Data collection tool will be provided, anticipated spring 2020
 - PIC numbers for educators
 - First name, middle name, last name, DOB, school code for students
- Adjust budget as needed at mid-project report

- Fiscals overseeing multiple STEMworks programs will have multiple MEGS+ applications
- MEGS+ application components
 - Cover page
 - Assurances and certifications
 - Important information
 - Budget
 - Attachments - upload application document
 - Application form (narrative)
 - Letters of Support/Commitment
 - Upload as many documents as referenced in narrative

- A cross-disciplinary team will review the applications
 - May recommend additional opportunities for collaboration and alignment
- Provide feedback by the end of February
- Applicants submit modifications if necessary
- State aid payments begin (hopefully by April)

All Regional Directors can be found at:

- www.michigan.gov/mistem

Megan Schrauben, MiSTEM Network Executive Director

- (517) 643-5957
- schraubenm1@michigan.gov

Amanda Stoel, MDE Department Specialist

- stoela@michigan.gov

Ruth Anne Hodges, MDE Program Office Contact

- hodgesr8@michigan.gov