

MiSTEM Advisory Council

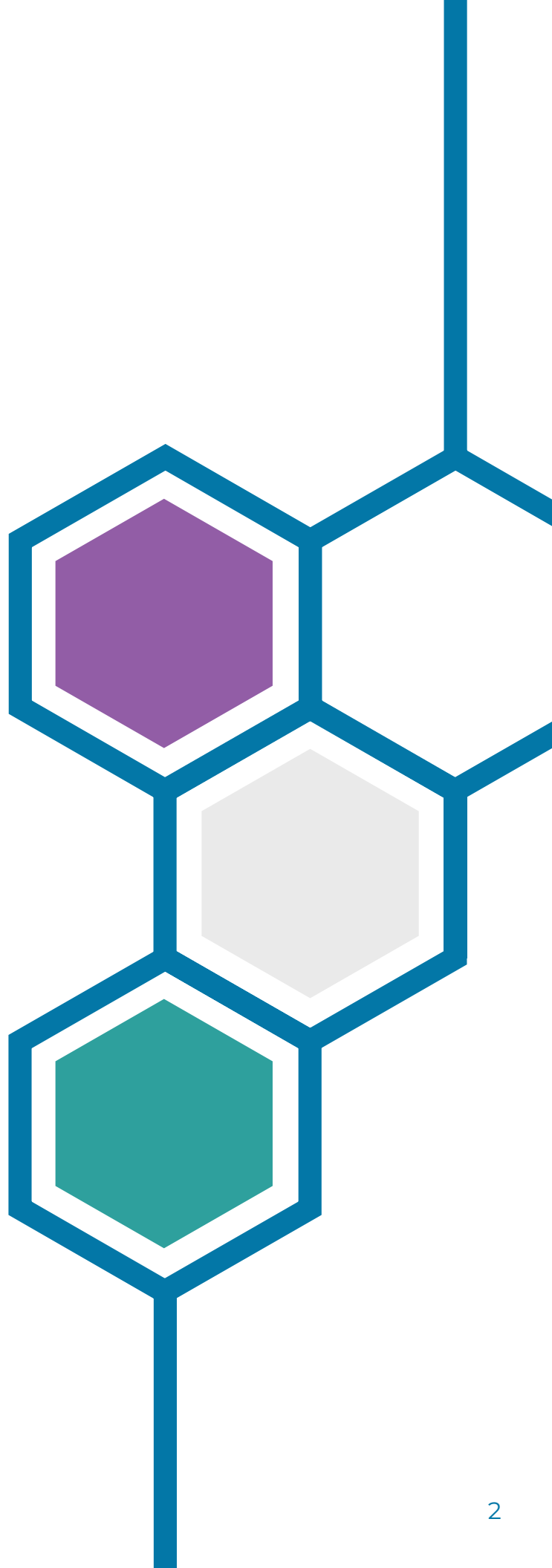
**FY 26**

**Recommendations**



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# Introduction

**Each year, the MiSTEM Advisory Council sets forth its strategic vision and outlines goals and objectives to advance science, technology, engineering and mathematics (STEM) education in Michigan.**

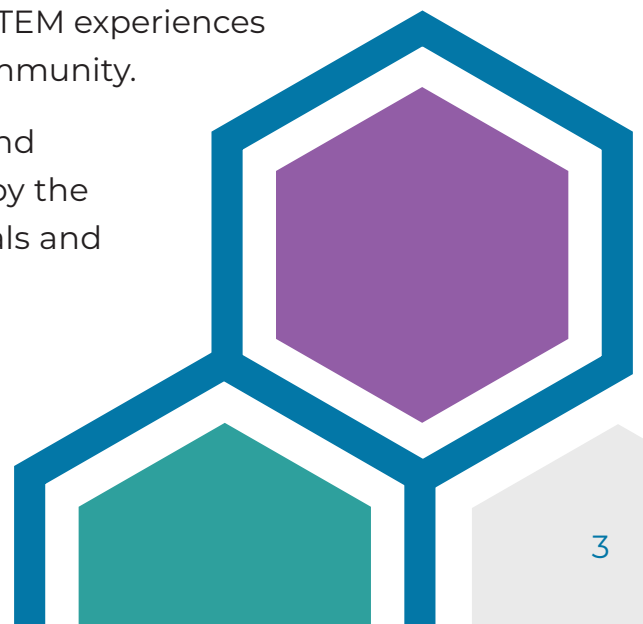
In fiscal year (FY) 2025, the council is focused on investing in communities with a specific framework that will transform STEM learning and build out STEM learning opportunities in every corner of the state.

The framework is grounded in place-, project- and problem-based (3P) STEM learning models. These models are dynamic approaches that engage students in real-world challenges and contexts, both inside and outside the classroom. By encouraging students to explore their environments, collaborate on meaningful projects and solve complex problems, 3P models foster deep understanding and make learning more relevant and impactful.

By adopting a holistic approach that begins with local and regional investment as part of an integrated statewide strategy, the council's recommendations establish a workable strategic plan to accelerate STEM learning and meet current needs while anticipating educational and workforce demands. The hallmark of the plan is to create 3P STEM demonstration communities. The council will identify seven communities across the state that are accessible to all and can serve as catalysts for transformation. Selected demonstration communities will showcase STEM in real-world applications and provide opportunities to learn from those who have successfully implemented 3P strategies.

Through relationships with local and regional partners, STEM learning will be more accessible and will accelerate authentic STEM experiences and workforce development in every Michigan community.

The advisory council is energized by the impact and progress made in the past year and is motivated by the shared alignment around collaborative vision, goals and objectives for FY 2025.



# Pushing the Accelerator

**For FY 2026, the council recommends an investment to accelerate the statewide STEM strategy by creating 3P STEM demonstration communities.**

To implement this strategy, the council is proposing a four-year investment. The council recognizes that the most effective and cost-efficient way for communities to transition to a 3P STEM future is to experience successfully implemented models firsthand.

Building bridges to the future requires investment and commitment.

The council's plan requires a \$29 million investment over four years, broken down as follows:

- **\$2.75 million each for seven demonstration communities:**
  - Years 1 and 2: \$1 million each for local learning site, staffing, partner collaboration community building, professional learning and materials/resources.
  - Year 3: \$500,000 for staff professional development and implementation support.
  - Year 4: \$250,000 for transitioning to sustainable adoption.
- **\$10 million for statewide implementation:**
  - Pipeline development: \$5 million for pre-service, in-service and research to ensure current and future educators have aligned training.
  - Site visits and administration: \$5 million for hosting learning visits at demonstration communities, conducting statewide marketing and scaling and program evaluation.

# Key Budget and Policy Changes

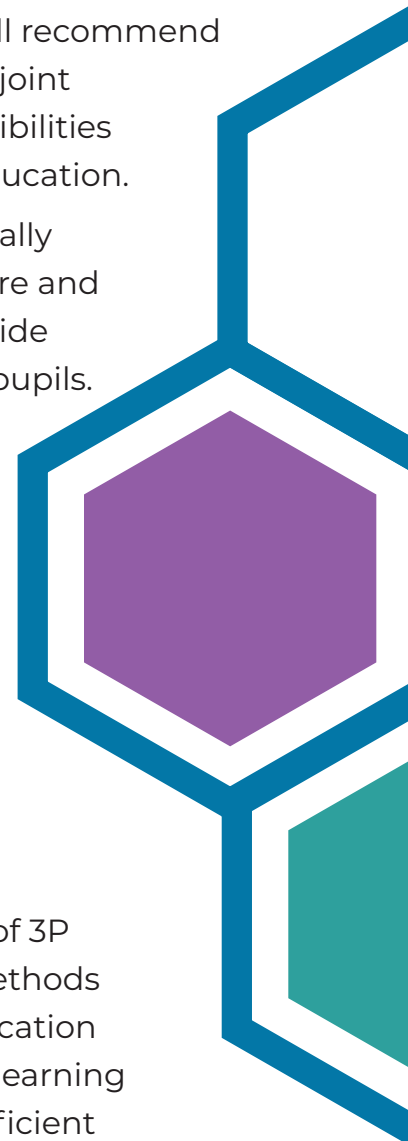
**The council's mission is governed by Executive Order 2019-13 and Public Act 120 of 2024:**

- In accordance with EO 2019-13, the MiSTEM Advisory Council shall recommend measures to ensure effective communication, collaboration and joint objectives among state departments and agencies with responsibilities related to science, technology, engineering and mathematics education.
- Under Public Act 120 of 2024, the MiSTEM Advisory Council annually reviews and makes recommendations to the governor, Legislature and the Department of Education concerning changes to the statewide strategy for delivering STEM education-related opportunities to pupils.

**The council affirms the current statewide STEM strategy, which consists of four pillars:**

- Creating a robust regional STEM culture.
- Empowering STEM teachers.
  - “Teachers” refers to any educator whom youth may encounter, from their families, communities and classrooms.
- Integrating business and education into the STEM network.
- Ensuring high-quality STEM experiences for pupils.

To effectuate these pillars, the council emphasizes the importance of 3P STEM learning models. These models encompass PK play-based methods and work-based learning models found in career and technical education (CTE) programs. By integrating 3P STEM learning models across all learning spaces, the council aims to create a more coherent, effective and efficient PK-12 system.



The STEM network is at a critical juncture in operational capacity due to current levels of funding. The current MiSTEM budget falls short of meeting the mandated requirements and does not account for the dramatic spike in inflation. The council recommends the following budget increases:

- **Advisory Council Grant** (MCL 388.1699s (3)&(4)): Increase to \$6 million (FY 2026) from current \$3 million.
- **Network Region Grant** (MCL 388.1699s (5)&(6)): Increase to \$7.6 million (FY 2026) from current \$3.8 million.
- **Playbook Grant** (MCL 388.1699s (7)): Increase to \$1.5 million (FY 2026) from current \$750,000.

The requested budget increases would greatly enhance MiSTEM’s ability to focus on the student experience, offset rising costs and raise community exposure and awareness across the state. To make the STEM strategy available statewide, the council recommends that Michigan look to the precedent set in [America’s Strategy for STEM Education](#) in 2018, p. 9.

Goals for American STEM Education*																
Build Strong Foundations for STEM Literacy • Increase Diversity, Equity and Inclusion in STEM • Prepare the STEM Workforce for the Future																
Pathways	Objectives	DOC	DoD	DOE	DHS	DOI	DOL	DOS	DOT	ED	EPA	HHS	NASA	NSF	SI	USDA
Develop and Enrich Strategic Partnerships	Foster STEM Ecosystems that Unite Communities	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Increase Work-Based Learning and Training through Educator-Employer Partnerships	●	●	●	●	●	●			●	●	●	●	●	●	●
	Blend Successful Practices from Across the Learning Landscape	●	●	●	●		●	●		●	●			●	●	●
Engage Students where Disciplines Converge	Advance Innovation and Entrepreneurship Education	●	●	●				●		●	●	●		●		●
	Make Mathematics a Magnet	●	●							●				●		●
	Encourage Transdisciplinary Learning	●	●	●	●	●		●		●	●	●	●	●	●	●
Build Computational Literacy	Promote Digital Literacy and Cyber Safety	●	●		●			●		●		●		●		●
	Make Computational Thinking an Integral Element of All Education	●	●	●	●	●				●		●		●	●	●
	Expand Digital Platforms for Teaching and Learning	●		●	●			●		●				●	●	●

Table 1: The table above lists the educational pathways and objectives under this strategic plan and the federal departments and independent agencies that have STEM education programs, investments and activities. The dots indicate the objectives each agency currently plans to contribute to through mission-specific actions, subject to budgetary constraints and other approvals. [America’s Strategy for STEM Education](#) in 2018, p. 9.

Chart content credit: COMMITTEE ON STEM EDUCATION of the NATIONAL SCIENCE & TECHNOLOGY COUNCIL

In Michigan, efforts to align the state’s STEM strategy with the federal STEM strategy have already begun. Over the past five years, the council has collaborated closely with the Department of Environment, Great Lakes, and Energy’s Office of the Great Lakes to release grants for programs that encourage students to become stewards of the environment and freshwater resources through locally focused projects that align with the statewide 3P STEM strategy. More recently, the council introduced funding opportunities for communities to enhance experiences for PK-8 in electric vehicle (EV)/mobility and semiconductor careers in partnership with local employers through the Michigan Economic Development Corporation’s Talent Action Team.

Given the council’s full commitment to implementing the 3P STEM strategy, that strategy must now be supported by each of our state’s agencies. The school aid bill provides a starting point for many opportunities for our PK-12 system to engage with STEM learning.

Listed below are sections in the school aid bill in which MiSTEM has been named in either the policy language, the program’s grant guidelines or in areas where MiSTEM collaborates to drive understanding and implementation of the statewide 3P STEM strategy. Also detailed below are recommendations that show opportunities for further alignment with the statewide STEM strategy.

<u>School Aid Policy Section</u>	Topic Description	Funding Level in FY 2025	Alignment to Date	Recommendation
<b>MCL 388.1623h</b>	<b>Mathematics Teaching and Learning</b>	\$25M	Leverages the MiSTEM Regional Network.	None — one-time funding.
<b>MCL 388.1632n</b>	<b>(Federal Funding) Expanded Learning — Out-of-School-Time Programs</b>	\$75M	Participated as a member of the Michigan Out-of-School-Time Advisory Committee, encouraging connecting MiSTEM and MEDC shared grants to OST opportunities.	Add in language to boilerplate that aligns this funding line item with the statewide STEM strategy and furthers the connection for this work in collaboration with the MiSTEM Network.

<p><b>MCL 388.1635i</b></p>	<p><b>MiFamily Engagement Centers</b></p>	<p>\$14M</p>	<p>Continued dialogue to move shared goals forward.</p>	<p>Keep MiSTEM as a critical partner in the grant applications. Four-year funding in FY 24.</p>
<p><b>MCL 388.1661a</b></p>	<p><b>Career and Technical Education (CTE)</b></p>	<p>\$39.9M</p>	<p>Currently developing a shared tool to communicate the wide variety of engagement with the statewide STEM strategy through apprenticeship, internship and other work-based learning models.</p>	<p>Keep MiSTEM as a critical partner in the implementation of work-based learning models and the MI career development model.</p>
<p><b>MCL 388.1667b</b></p>	<p><b>SME Education Foundation's Partnership Response Initiative</b></p>	<p>\$1M</p>	<p>Continued dialogue to move forward shared goals of 3P instructional models connected to careers.</p>	<p>Add in language to boilerplate that aligns this funding line item with the statewide STEM strategy and furthers the connection for this work in collaboration with the MiSTEM Network.</p>
<p><b>MCL 388.1699b</b></p>	<p><b>Computer Science Professional Development and Learning Programs</b></p>	<p>\$500K</p>	<p>Working in partnership with the MiSTEM Council grant-funded computer science state collaborative.</p>	<p>Add in language to boilerplate that aligns this funding line item with the statewide STEM strategy and furthers the connection for this work in collaboration with the MiSTEM Network.</p>



<b>MCL 388.1699h</b>	<b>Robotics Grants</b>	\$5.3M	Worked with <b>FIRST</b> and <b>Square One</b> teams to encourage leveraging MMC flexibility to promote moving robotics programs into the school day as well as extracurricular.	Add in language to boilerplate that aligns this funding line item with the statewide STEM strategy and furthers the connection for this work in collaboration with the MiSTEM Network.
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Listed below are sections of the school aid bill in which the council intends to build relationships over the next year or recommend revision given they do not align with the statewide STEM strategy.

<u>School Aid Policy Section</u>	Topic Description	Funding Level in FY 2025	Alignment to Date	Recommendation
<b>MCL 388.1698</b>	<b>Michigan Virtual University and Learning Research Institute</b>	\$9.3M (\$8M in 2025/26)	Language encourages working with the MiSTEM Council to coordinate professional development of teachers.	Efforts should be aligned to the MiSTEM Council grants.
<b>MCL 388.1699 (3)</b>	<b>American Lightweight Materials Manufacturing Innovation Institute</b>	\$1M		New section, one year funding only; efforts should be aligned to the statewide STEM strategy.
<b>MCL 388.1699i</b>	<b>MI Council of Women in Technology Foundation</b>	\$250K	In the past, MDE has encouraged partnering with MiSTEM.	New section this year; add in language to boilerplate that aligns this funding line item with the statewide STEM strategy and furthers the connection for this work in collaboration with the MiSTEM Network.

<b>MCL 388.1699t</b>	<b>Online Algebra Tool</b>	\$1M	None — The way this is currently funded sends money out of Michigan and is based on outdated math skills and technology that is not aligned with the career- and college-ready skills called for in our standards.	Roll these funds into section MCL 388.1699s (3) & (4) Advisory Council grants to support the entire system — in this case additional support offerings outside the main classroom that will align with the statewide STEM strategy and connect to district curriculums. Identify a Michigan-based vendor that is knowledgeable about the statewide STEM strategy to do this work.
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In addition to its work on the school aid bill, the council applauds the Legislature for proposing **House Bill 5735**. This bill is critical for clarifying the flexibility that the Michigan Merit Curriculum (MMC) provides and alleviates concerns about implementing authentic 3P STEM learning models. The council highly recommends moving House Bill 5735 forward as it supports innovation in learning environments that mimics how students engage in the real world.



# Conclusion

The MiSTEM Advisory Council greatly appreciates the attention and support received from lawmakers, staff and other policymakers and values your thoughtful consideration of this report's well-researched recommendations. The council's commitment to meeting Michigan's education and workforce goals relies on the support of dedicated partners and advocates like you.

There is a broad consensus that STEM education is the key to Michigan's economic future. The critical investment at the levels outlined in this report will accelerate meaningful and measurable impact for the state's schools, educators, youth, workforce and communities. Supporters like you can help advocate for sustainable funding for STEM learning, which is the key to a better future for all Michiganders.