

Welcome to the MISF STEM Grant Program!

We are pleased to offer this grant opportunity to our member schools in partnership with our funders—3M Foundation, Schott Foundation and Xcel Energy Foundation.

The STEM Grant Program supports the development of learning opportunities that:

- Improve students' knowledge of science, technology, engineering and/or mathematics concepts—especially in multidisciplinary contexts;
- 2. Develop students' STEM skills, such as the practices used by scientists and engineers (e.g. Science and Engineering Practices and 21st Century Skills) as well as their abilities to use materials, tools, and technology to conduct investigations, engage in problem solving, and design solutions;
- Enhance students' understanding of the interdisciplinary nature of STEM, the value of STEM skills and knowledge in the workplace, and relevance of STEM to everyday life and work; and
- 4. Increase students' interest in post-secondary STEM education and careers.

Descriptions of the STEM projects that have received STEM Grant funding in the past are posted on the MISF website [www.misf.org] under the STEM Program menu. They range from creatively simple, yet effective curriculum enhancements to large, complex projects. Both approaches—and everything in-between—have provided new STEM learning opportunities for students in MISF member schools. The key to a successful grant proposal is to clearly address the goals of the STEM Grant Program in a way that is appropriate to your school and for the students it will reach.

MISF looks forward to receiving your STEM Grant Application. Our hope is to provide the funding needed to enhance quality STEM education programs in your school.

If you have any questions about the grant program or the application process, please don't hesitate to contact us. The STEM Advisory Committee and MISF staff are here to help!

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MISF STEM Grant Guidelines: For projects to be implemented in June 2021 to June 2022

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MISF STEM Grant Guidelines:

For projects to be implemented in June 2021 to June 2022

Please read these guidelines carefully as some things have changed from previous years.

STEM Grant Types

Three types of STEM Grants will be awarded, as described below. Please note that the size and number of awards will be based on total funding available and the degree to which submitted proposals address funding criteria. Members of the MISF STEM Advisory Committee will review the STEM Grant applications with respect to the criteria for each grant type stated below.

Eligibility and Number of Awards per School

All MISF member schools are eligible to apply for STEM Grants, and the proposed project may be for any grade(s), K-12. Preschool STEM projects are not eligible for MISF STEM Grant funding.

Schools may submit multiple grant applications; however, a school is only eligible to receive up to one Starter OR one Innovation Grant, and one Sustainability Grant, per year. If your school has received any type of MISF STEM Grant in the past, you are not eligible to apply for a Starter Grant.

Schools that have received STEM Grants in prior years, including the previous year, are eligible to apply, with the following exception. Any school that receives a grant and subsequently fails to submit a final report by the deadline (unless an extension has been approved) is ineligible to apply for a STEM grant in the year that immediately follows.

NOTE: If your STEM Grant project includes building structures, interacting with protected animal or plant species, has safety implications for teachers and students, etc. you must show that you have a plan to comply with any applicable regulations and/or codes.

Post-Award Process and Requirements

At least one representative of the school is expected to accept their STEM Grant award at the Minnesota Private and Independent Education Awards on April 25, 2021 (tentative date).
Paperwork received at the Education Awards must be submitted to officially accept the grant award and initiate payment.
Starter and Sustainability Grants are paid in full upon receipt of paperwork. Innovation Grants are paid in installments (2/3 upon receipt of initial paperwork and 1/3 upon receipt of implementation plan). Implementation plans are due by September 17, 2021.
Teachers listed on the STEM Grant application are expected to attend the MISF STEM Education Conference in August 2021 (date to be determined).
All schools that receive STEM Grants are required to submit a final grant report to MISF by June 3, 2022. A Survey Monkey link for grant reporting will be provided at a later date.



Types of STEM Grants: Starter Grants

Starter Grants — up to \$1,500

Starter Grants are for schools that have not received a MISF STEM Grant in the past and are suitable for projects that will launch a STEM education effort at your school. Please note that schools are <u>NOT required</u> to begin with a Starter Grant—schools with well-developed projects are encouraged to consider applying for Innovation Grants.

A Starter Grant will be awarded for acquisition and implementation of curricula and/or educational materials. Professional development and teacher stipends are allowed and encouraged expenses for Starter Grants. Starter Grant awards will be paid in full upon receipt of the grant agreement by MISF, by June 2021.

Starter Grant Scoring Criteria

10 points	Project Description
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5 points Outcomes

5 points Evaluation & Assessment

10 points Planning Implementation Activities

5 points Academic Standards 10 points Diversity & Inclusion

45 points total



Types of STEM Grants: Starter Grants, continued

Starter Grant Application Questions

Note that all Letters of Interest and Grant Applications must be submitted via Survey Monkey. PDF copies of the Survey Monkey forms can be found on the MISF website for your reference. Because Survey Monkey entries may be lost if your application is not completed in one sitting, MISF strongly recommends that you prepare your Letter of Interest and Grant Application using word processing software and then copy and paste your answers into Survey Monkey when you are ready to submit.

PROJECT DESCRIPTION [200 words maximum]

The project description should include an overview of your project as well as information such as: grade of students to be served, subject areas included, overall goal/purpose of the project, and how it will benefit STEM education at your school. If your grant is funded, your project description will be published on the MISF website.

OUTCOMES [200 words maximum]

What student outcomes do you hope to achieve through this project? List no more than five.

EVALUATION & ASSESSMENT [200 words maximum]

What information will you gather to help you determine if outcomes are being achieved?

PLANNING & IMPLEMENTATION ACTIVITIES [200 words maximum]

Provide a high-level work plan for the core activities/steps associated with developing and implementing your project. Include a timeframe and brief description for each activity.

ACADEMIC STANDARDS [200 words maximum]

- 1. List the academic standards that are most relevant to the proposed project (include a one-sentence summary for each standard, not just a reference number). Include no more than five standards.
- 2. List the top three STEM skills and/or practices that your project will help students develop. Include a brief summary for each.

DIVERSITY & INCLUSION [200 words maximum]

MISF aims to ensure that all students at member schools have access to high-quality STEM learning experiences. Thus, it is important that projects we fund incorporate research-based strategies and practices to include students from groups that have traditionally experienced achievement, access and/or opportunity gaps in STEM. This includes: girls, students of color, low-income students, English language learners, students with learning differences, and students attending school in rural locations.

To assist schools with addressing this challenge, **CLICK HERE** to access **Resources for Inclusive STEM Learning**.

How will your proposed project include strategies and practices that promote engagement, access, and achievement in STEM for all students—especially those from underrepresented and/or underserved groups—at your school?



Types of STEM Grants: Sustainability Grants

Sustainability Grants — up to 20% of original grant, not to exceed \$1,500

Schools may request a Sustainability Grant to provide additional funding for consumable materials needed to continue a STEM project that has previously received funding through the MISF STEM Grant Program. A Sustainability Grant may be requested for up to 20% of the school's original grant. Schools are eligible to receive one Sustainability Grant per original grant. Awarded grants will be paid in full upon receipt of the grant agreement by MISF, by June 2021. Schools may only apply for one Sustainability Grant per year.

Sustainability Grant Scoring Criteria

10 points Project Description

5 points Outcomes

5 points Evaluation & Assessment

10 points Planning Implementation Activities

10 points Diversity & Inclusion
5 points Past Project Successes

5 points Sustainability

50 points total



Types of STEM Grants: Sustainability Grants, continued

Sustainability Grant Application Questions

Note that all Letters of Interest and Grant Applications must be submitted via Survey Monkey. PDF copies of the Survey Monkey forms can be found on the MISF website for your reference. MISF strongly recommends that you prepare your Letter of Interest and Grant Application using word processing software and then copy and paste your answers into Survey Monkey when you are ready to submit.

PROJECT DESCRIPTION [200 words maximum]

The project description should include an overview of your project as well as information such as: grade of students to be served, subject areas included, overall goal/purpose of the project, and how it will benefit STEM education at your school. If your grant is funded, your project description will be published on the MISF website.

OUTCOMES [100 words maximum]

What student outcomes do you hope to achieve through this project? List no more than five. [SEP]

EVALUATION & ASSESSMENT [200 words maximum]

What information will you gather to help you determine if outcomes are being achieved? [SEP]

PLANNING & IMPLEMENTATION ACTIVITIES [200 words maximum]

Provide a high-level work plan for the core activities/steps associated with developing and implementing your project. Include a timeframe and brief description for each activity.

DIVERSITY & INCLUSION [200 words maximum]

MISF aims to ensure that all students at member schools have access to high-quality STEM learning experiences. Thus, it is important that projects we fund incorporate research-based strategies and practices to include students from groups that have traditionally experienced achievement, access and/or opportunity gaps in STEM. This includes: girls, students of color, low-income students, English language learners, students with learning differences, and students attending school in rural locations.

To assist schools with addressing this challenge, <u>CLICK HERE</u> to access **Resources for Inclusive STEM Learning**.

How will your proposed project include strategies and practices that promote engagement, access, and achievement in STEM for all students—especially those from underrepresented and/or underserved groups—at your school?

PAST PROJECT SUCCESSES [200 words maximum]

Describe the successes of your prior STEM Grant project, especially in terms of the impact it has had on teaching and learning. What evidence do you have to support these successes?

SUSTAINABILITY [100 words maximum]

How will funding of this project support your school's long-term goals for STEM teaching and learning?



Types of STEM Grants: Innovation Grants

Innovation Grants — up to \$5,000

Innovation Grants will be awarded for projects that:

- Develop **authentic STEM learning opportunities** in an engineering design and/or scientific discovery framework. Multidisciplinary projects that integrate more than one content areas are encouraged.
- Are designed to expand and improve their school's STEM offerings.
- Align with relevant academic standards and STEM skills.
- Incorporate formative and/or summative assessment or other form of program evaluation to guide real-time project implementation, measure project success, and identify opportunities for improvement.
- Recognize the importance of **teacher professional development** by including training, mentoring, and/or summer stipends for planning and development.
- Make authentic and relevant connections between STEM learning in school and the world beyond.
- Lay a **foundation for creation, growth, expansion and sustainability** of STEM programs at the recipient school.
- Are a team effort of two or more teachers, either from the same school or multiple schools. If the
 project team includes more than one school, collaborating schools may apply jointly for a single
 Innovation Grant, or submit separate linked grants. [If you are proposing a multi-school project,
 please contact the STEM Program Manager in advance of the application deadline to discuss your
 project.]
- Build **meaningful community partnerships** between schools and community organizations, such as nonprofits, higher education, other K-12 schools, and/or businesses. Innovation Grant applications must include a **Letter of Support** from at least one community partner.

Innovation Grant Scoring Criteria

10 points	Project Description
5 points	Outcomes
5 points	Evaluation & Assessment
10 points	Planning Implementation Activities
5 points	Academic Standards
10 points	Improvement & Sustainability
10 points	Diversity & Inclusion
5 points	Cross Disciplinary Connections
5 points	Connections Outside the Classroom
5 points	Community Partners

70 points total



Types of STEM Grants: Innovation Grants, continued

Innovation Grant Application Questions

Note that all Letters of Interest and Grant Applications must be submitted via Survey Monkey. PDF copies of the Survey Monkey forms can be found on the MISF website for your reference. MISF strongly recommends that you prepare your Letter of Interest and Grant Application using word processing software and then copy and paste your answers into Survey Monkey when you are ready to submit.

PROJECT DESCRIPTION [200 words maximum]

The project description should include an overview of your project as well as information such as: grade of students to be served, subject areas included, overall goal/purpose of the project, and how it will benefit STEM education at your school. If your grant is funded, your project description will be published on the MISF website.

OUTCOMES [100 words maximum]

What student outcomes do you hope to achieve through this project? List no more than five.

EVALUATION & ASSESSMENT [200 words maximum]

What information will you gather to help you determine if outcomes are being achieved? [SEP]

PLANNING & IMPLEMENTATION ACTIVITIES [200 words maximum] [5]

Provide a high-level work plan for the core activities/steps associated with developing and implementing your project. Include a timeframe and brief description for each activity.

ACADEMIC STANDARDS [200 words maximum]

- 1. List the academic standards that are most relevant to the proposed project (include a one-sentence summary for each standard, not just a reference number). Include no more than five standards.
- 2. List the top three STEM skills and/or practices that your project will help students develop. Include a brief summary for each.

IMPROVEMENT & SUSTAINABILITY [200 words maximum]

- 1. How will you use what you learn during project implementation to make improvements during the term of your grant?
- 2. How will funding of this project support your school's long-term goals for STEM teaching and learning?

DIVERSITY & INCLUSION [200 words maximum]

MISF aims to ensure that all students at member schools have access to high-quality STEM learning experiences. Thus, it is important that projects we fund incorporate research-based strategies and practices to include students from groups that have traditionally experienced achievement, access and/or opportunity gaps in STEM. This includes: girls, students of color, low-income students, English language learners, students with learning differences, and students attending school in rural locations.

To assist schools with addressing this challenge, <u>CLICK HERE</u> to access **Resources for Inclusive STEM Learning**.



How will your proposed project include strategies and practices that promote engagement, access, and achievement in STEM for all students—especially those from underrepresented and/or underserved groups—at your school?

CROSS-DISCIPLINARY CONNECTIONS [100 words maximum]

How will this project make connections between science, technology, engineering and/or math or with other disciplines (for example: language arts, creative arts, social studies, religion, etc.)?

CONNECTIONS OUTSIDE THE CLASSROOM [200 words maximum]

How does your project help students make connections to their own lives, their communities, and/or the world, including STEM careers and post-secondary educational opportunities--as developmentally appropriate for the age of students involved?

COMMUNITY PARTNERS [100 words maximum]

Who is/are your community partner/s and what role will they play in your project?



Use of Funds: How STEM Grant Funds May [and May Not] Be Used

Grant funds must be used between the time of grant award and June 3, 2022. Any funds not spent by this date must be returned to MISF by June 30, 2022.

Funds May Be Used for:

- EQUIPMENT, MATERIALS & SUPPLIES.
 - Non-consumable materials such as tools, lab equipment or similar items that are not for one-time use. Any equipment that is of significant cost must be clearly justified as being essential to the proposed project. Computer software, lab equipment, or maker space equipment directly relevant to the project may be included.
 - ➤ Consumable supplies may be included in Starter and Innovation Grants, up to 20% of the total request. Sustainability Grants are usually awarded to cover costs of consumable or replacement materials necessary to continue and improve a previously funded project. In some cases, nonconsumable materials may be justified for Sustainability Grants (for example additional sets of tools or curriculum materials to scale up a previously funded project).
- PROFESSIONAL DEVELOPMENT for teachers to learn new methods, acquire new knowledge or skills, or further their understanding in ways that are directly relevant to the project is strongly encouraged. This may include a stipend for one or more teacher to plan and develop STEM projects as well as fees for relevant workshops, training and other learning opportunities. MISF encourages schools to pay stipends at a rate of \$25/hour. Stipends may not exceed \$750 per teacher. Professional development is allowed for Sustainability Grants only in cases that directly relate to sustaining the original project, as opposed to extending it beyond its original scope.

Funds will be *considered* for the following if they are integral to the proposed project:

 Registration fees to enable teachers to attend a conference, seminar or workshop for professional development, only if directly related to the proposed project.

Grant funds may *not* be used for:

- General-purpose expenditures such as technology (general-use computers or tablets, projectors, smart boards, etc.) and furniture (such as desks, shelving and general-use storage systems).
- Field trip, camp or competition expenses for students, e.g. program or registration fees, tuition, room and board and/or transportation.
- Fees or stipends for guest speakers, chaperones, etc.
- Expenses typically part of a school budget, such as teacher salaries or building renovations.
- Transportation, lodging, meals, car rental and other travel expenses for teachers to attend conferences, workshops, seminars, etc.
- Fees for residencies or programs offered by museums or other organizations UNLESS they also include a teacher professional development component.
- Registration fees to attend the MISF STEM Education Conference.

Please direct any budget questions to:

Beth Murphy, MISF STEM Program Manager, bmurphy@misf.org, 612-270-0194



How to Apply

Note that all Letters of Interest and Grant Applications must be submitted via Survey Monkey. PDF copies of the Survey Monkey forms can be found on the MISF website for your reference, and Grant Application questions for each type of grant are also included in the descriptions of each grant type, above. It is strongly recommended that you prepare your answers to the Letter of Interest and Grant Application questions in advance using word processing software and copy and paste your answers into Survey Monkey when you are ready to submit.

Letter of Interest — Due Tuesday, January 12, 2021 by 6pm

Each school that intends to submit a STEM Grant Application must submit a Letter of Interest describing the preliminary project concept and plan. The Letter of Interest must be completed online and is available at the following link:

https://www.surveymonkey.com/r/STEM-grant-LOI-2021

Grant Application — Due Tuesday, February 18, 2020 by 6pm

Each grant application must include a completed cover sheet and a project budget in addition to the questions listed above. Innovation Grant applications also require at least one Letter of Support from a community partner. The MISF STEM Grant application can be found here:

https://www.surveymonkey.com/r/STEM-grant-application-2021

STEM Grant Guidelines, Application Forms and Other Information

The following information is available at: http://misf.org/stem-grants/

- STEM Grant Calendar
- STEM Grant Letter of Interest PDF & Online Form Link
- STEM Grant Application PDFs for Starter, Innovation and Sustainability Grant Applications & Online Form Link
- STEM Grant Budget Form
- Resource List & Resources for Inclusive STEM Learning
- Reference List of Academic Standards
- Project descriptions for previously awarded STEM Grants

Letters of Interest & Grant Applications must be submitted via Survey Monkey.

Please direct any questions about the grant process to:
Beth Murphy, MISF STEM Program Manager, bmurphy@misf.org, 612-270-0194
Lisa Vosbeek, Director of Development and Programs, lvosbeek@misf.org, 651-424-4930