



How to write a winning STEM Grant proposal & Intro to Community Partnerships

Beth Murphy, STEM Program Manager

minndependent.org/stem-grants/

MINNDEPENDENT STEM Program Funders



SCHOTT FOUNDATION



How is the STEM Grant program supported & managed?

STAFF

- ◆ Lisa Vosbeek, Director of Development & Programs
- ◆ Beth Murphy, STEM Program Manager

ADVISORY COMMITTEE

- ◆ Ann Dougherty, Benilde-St. Margaret's School
- ◆ Debbie Monson, University of St. Thomas
- ◆ Dr. Jennifer Ott Krieger, Holy Spirit School
- ◆ Jessica Aleshire, Boston Scientific
- ◆ John Henderson, 3M
- ◆ Jorge Ulate, General Mills
- ◆ Justin Spencer, The Bakken Museum
- ◆ Michael Lamb, Xcel Energy (committee chair)
- ◆ Vikram Ghosh, Ardent Mills

Types of STEM Grants

STARTER GRANTS

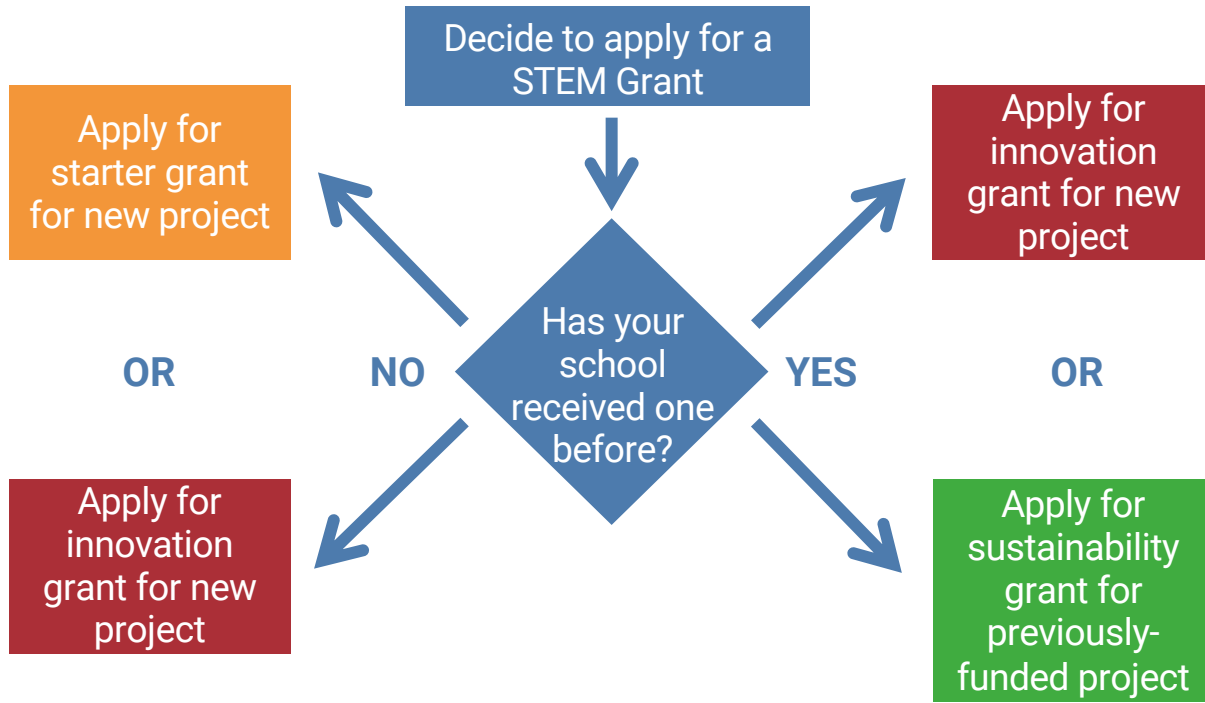
- For member schools who have never received a STEM Grant
- \$1,500 maximum; can be used for materials, curriculum & teacher PD

INNOVATION GRANTS

- Support implementation of promising new programs, courses & curricula
- \$5,000 maximum; can be used for materials, curriculum, teacher PD & teacher stipends

SUSTAINABILITY GRANTS

- Support successful, previously-funded projects
- Max 20% of original award, used for materials & supplies, PD for teachers new to project



STEM Grant Timeline

MID-JANUARY 2023

Letters of Interest due

Great time to ask
questions & get
feedback!



MID-FEBRUARY 2023

Full proposals due

MARCH 2023

Advisory committee meets





Decisions communicated to schools



Questions?

Innovation Grant Review Form

* 3. Please choose the rating that best matches the listed proposal component:

	POOR does not meet criteria	FAIR partially meets criteria	GOOD meets criteria	EXCELLENT exceeds criteria
PROJECT DESCRIPTION: Overview of project including: grade of students served, subject area(s), purpose of the project, and how it will benefit STEM learning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
STUDENT OUTCOMES: Clearly-stated, meaningful outcomes: what students will learn and be able to do as a result of proposed project.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
EVALUATION & ASSESSMENT: Describes information that will be gathered to measure achievement of student outcomes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
PLANNING & IMPLEMENTATION: High-level project workplan and timeline provided.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
ACADEMIC STANDARDS: Relevant academic standards listed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/> 
ACADEMIC STANDARDS: Relevant STEM skills or practices listed and described.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/> 
IMPROVEMENT: Describes how school will use what they learn to make improvements.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
SUSTAINABILITY: Describes how funded project supports schools long term goals for STEM teaching and learning.	<input type="radio"/>	<input checked="" type="radio"/> 	<input type="radio"/>	<input type="radio"/>
DIVERSITY & INCLUSION: Describes how project includes strategies/practices to promote achievement in STEM for all students.	<input type="radio"/>	<input checked="" type="radio"/> 	<input type="radio"/>	<input type="radio"/>
CROSS-DISCIPLINARY CONNECTIONS: Describes how project makes connections between science, technology, engineering and/or math or with other disciplines (language arts, arts, social studies, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
CONNECTIONS OUTSIDE THE CLASSROOM: Describes how project connects to students' lives, their communities and the world--including STEM careers and post-secondary education in age-appropriate ways.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
COMMUNITY PARTNER(S): Describes community partner and role they will play (based on answer to question and letter of support provided).	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/> 	<input type="radio"/>

Grant proposal sections: STUDENT OUTCOMES

- ✓ Include learning outcome that are specific to the project, don't be too vague.
- ✓ Types of outcomes include awareness, knowledge, attitudes, skills, beliefs, aspirations, motivation, or behavioral intent
- ✓ Focus on what students will gain, not teacher outputs
- ✓ Clearly defined SMART goals (Specific, Measurable, Attainable, Relevant, Time-based)

Grant proposal sections: OUTCOME EVALUATION

- ✓ Explain how outcomes will be measured
- ✓ Clear connection to stated outcomes
- ✓ Intended uses for intended users
- ✓ Keep it simple, yet specific
- ✓ Be creative with data sources (survey, observation, test, rubric, student work, teacher reflection, etc.)

OUTCOMES & EVALUATION – advisor tip

“Applications with vague [student outcomes like] ‘students will gain awareness’ or ‘we will conduct a survey to ask if students enjoyed it’ tend to not score as highly as [ones] that specific tasks students will be able to perform or questions they can answer and understand resulting from the program.



Grant proposal sections: PLANNING & IMPLEMENTATION

- ✓ Clear and specific timelines
- ✓ Recognized importance of teacher PD and planning time

PLANNING/IMPLEMENTATION – advisor tip

“ If teachers will need time for planning and professional development, be sure to acknowledge this in the grant proposal, even if funds to support it aren't being requested.



Grant proposal sections: DIVERSITY & INCLUSION

MINNDEPENDENT aims to ensure that all students 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.

You can find some “Resources for Inclusive STEM Learning” at minndependent.org/stem-grants/. This is not an authoritative nor exhaustive list.

Grant proposal sections: DIVERSITY & INCLUSION

- ✓ Intentional and specific plans that recognizes that there are students from groups that are underrepresented/underserved in STEM in schools, extracurricular activities, and careers
- ✓ Includes how the project strives to address this
- ✓ Purposeful planning for diversity and inclusion, rather than an afterthought
- ✓ Refer to specific actions and instructional practices that will be embedded in program
- ✓ A statement like “open to all” is not enough

DIVERSITY & INCLUSION – advisor tip

“Responses to the diversity and inclusion question on the grant application surely can be better than *‘our program will be accessible to all students.’* To defeat the gender and racial gap in STEM, we must intentionally combat it.



“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?”

Grant proposal sections: COMMUNITY PARTNERS

- ✓ Connect with your community partner early in the process.
- ✓ Partnership vs. recommendation.
- ✓ Letter of Commitment includes some or all of the following:
 - Who the partner is and the business/organization they represent.
 - How the partner will support and collaborate with you/your school.
 - Why they think the project is important and why they want to be part of it.
 - The expertise or resources they bring to the project.

COMMUNITY PARTNERS – advisor tip

“A good community partner is a strategic partner. We look for more than a vague or generic letter of support.



Grant proposal sections: SUSTAINABILITY

- Program can be convincingly continued beyond duration of funding.

Grant proposal sections: BUDGET

- Provide reasonable detail.
- Justify big ticket items.
- Include teacher support when needed.
- Right size your request.

BUDGET – advisor tip

“It is not a given that expensive equipment is needed to foster innovation, so you need to justify such an expenditure. Generic goals such as ‘to foster innovation in the classroom’ may be well intentioned—but aren’t very convincing.



GENERAL TIPS

- ✓ Be somewhat detailed in your Letter of Interest.
- ✓ Be concise, yet detailed and specific in your proposal. Watch word count.
- ✓ Make sure project purpose is obvious (what's the problem your project solves?)
- ✓ Include a reasonably detailed budget and materials list.
- ✓ Right size your budget.
- ✓ Ask people to read and review your proposal.
- ✓ Reach out to **MINNDEPENDENT** with questions.

GENERAL – advisor tip

“Don't be afraid of critical feedback – it only makes a proposal better. Ask people to read and review your proposal; it will help you better define what you're asking for.”





Questions?

Information about STEM grants can be found at:

<https://minndependent.org/stem-grants/>

Contact Lisa or Beth with further questions

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How The Disease Spreads

A yellow bead catches the disease whenever it is in the same grid square as a red infected bead.

