

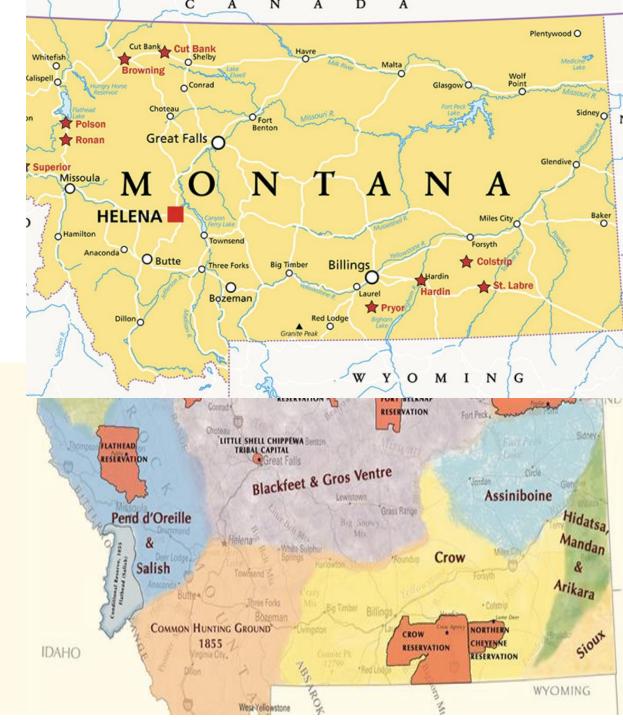
Rober Noyce Teacher Scholarship Program Track 3: Master Teaching Fellowships at Montana State University – Round 1 (NSF Award No. 2345186)

Rural and American Indian School Educators as Science, Technology, Engineering, and Mathematics Leaders (RAISE STEM Leaders) https://www.montana.edu/smrc/noyce/





NSF Noyce Master Teaching Fellows Networking and Orientation Dinner Wednesday, June18 5:30 – 7:30 PM Rendezvous Conference Room, MSU





Recruitment:

Noyce Teacher Fellows Summary by School District



District	School	MTFs	MTFs in graduate studies
Browning	Browning High & Napi Elem	4	2
Colstrip	Frank Brattin Middle	1	0
Cut Bank	Cut Bank High	2	1
Hardin	Hardin Middle & Crow Agency	5	2
Polson	Polson High School	3	0
Power	Power High School	1	0
Pryer	Plenty Coups High	1	0
Ronan	Ronan Middle	2	0
St. Ignatius	St. Ignatius Middle	1	0
St. Labre	St. Labre High & Pretty Eagle Catholic Academy	3	1
Superior	Superior JH/High	3	3
Total		26	9



Recruitment



Category	Count
Projected Fellows	26
Total Funded to Date	26
Funded This Reporting Year	26

Note: Adding one more math teacher fellow would bring the total to 27 — a perfect cube (3³) — and contribute to a more balanced distribution between math and science focus areas.



-

Robert Noyce Master Teacher Fellows Program

mm.montana.edu/smrc/noyce.html mrc@montana.edu

Robert Noyce Master Teacher Fellows Program

s scene runnation-runnen profem ener suppe sed and exemplary STEM teachers in becoming spenetren una exemplary 3 y East teachers ut becomm sacher laders in high-need Montana school districtio

A National Science Foundation-funded program that supports experienced and exemplary STEM teachers in becoming teacher leaders in high-need Montana school districts.

1:50,5 5

www.montana.edu/smrc/noyce.html smrc@montana.edu

PALLADADATE



Master Teacher Fellows Program

eacher Fello





Robert Noyce Teacher Scholarship Program Track 3: Master Teaching Fellowships Networking and Orientation Dinner Agenda

5:30 PM – 6:00 PM Welcome and Opening Remarks

Introduction of attendees

6:00 PM – 7:30 PM Noyce Fellows Orientation

- •Dinner continues during orientation
- •Fellowship Agreement & Promissory Note
- •Q&A session

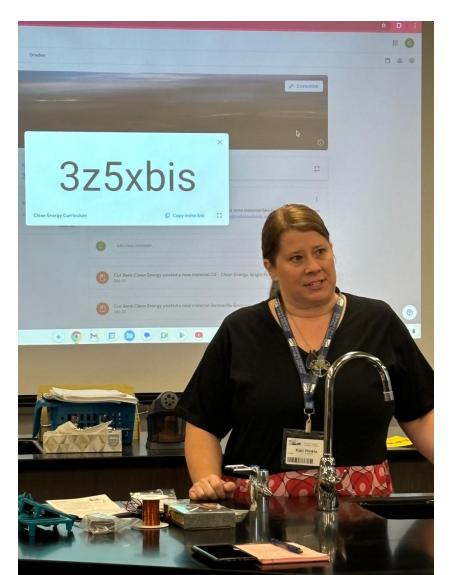
Robert Noyce Teacher Scholarship Program Track 3: Master Teaching Fellowships **Goals/Objectives**



The project aims to empower in-service teachers to become exemplary STEM leaders who draw on locally relevant knowledge and community context to **enhance academic rigor and increase student engagement in STEM education for all learners.**

- 1. Enhancing the leadership competence of 26 in-service STEM educators over five years.
- 2. Integrating funds of knowledge and Montana's Indian Education for All (IEFA) into STEM curricula and instruction
- 3. Empowering MTFs to lead formal and informal STEM activities tailored to increase student engagement in STEM learning.

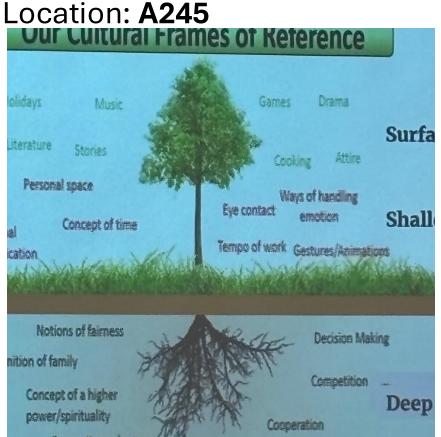
Goals 1 & 2: Funds of Knowledge & Leadership Competence: <u>Kari Hinkle</u> (Cut Bank Science Teacher, Science Fair Coach)



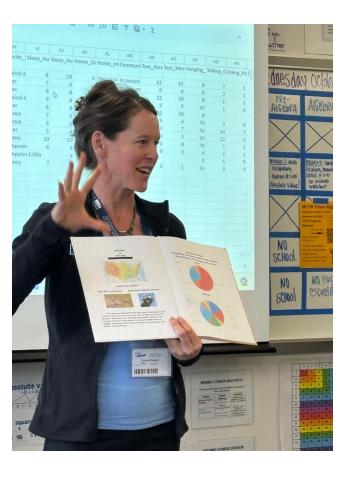
MFPE Session:

Clean Energy Inspired Classroom Challenge

Time: Friday, October 18, 9:00 AM - 10:00 AM



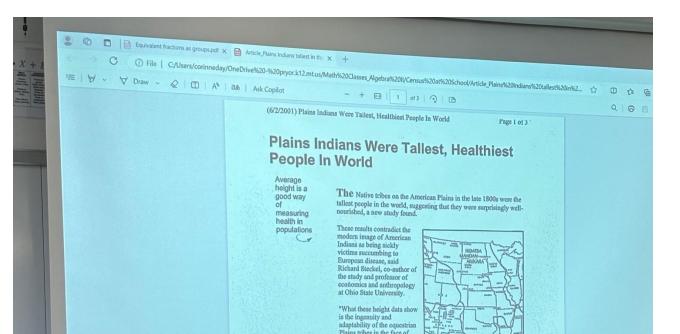
Goals 1 & 2 : Funds of Knowledge & Leadership Competence: Dr. <u>Corinne Thatcher Day</u> (Pryor Math Teacher, MCTM Board Member)



MFPE Session:

Using Census at School to Make Data Come Alive

Time: Thursday, October 17, 2:00 PM - 3:00 PM Location: A279



Goals 3 : Formal and Informal STEM Activities (Christopher Quinlivan, Superior Science Teacher, Science Olympiad Coach)



Robert Noyce Scholarship Program: Master Teaching Fellowship Track



"The term "fellowship" means funds awarded: ...in the NSF Master Teaching Fellowships Track to a STEM teacher (in which case the funds are also referred to as a salary supplement)." (p.7)

Source: Robert Noyce Teacher Scholarship Program Solicitation at <u>https://nsf-gov-</u> resources.nsf.gov/solicitations/pubs/2023/nsf23586/nsf23586.pdf?VersionId=tIBkInkkl YPxzBOh.UhQ7u.NFHXKYFBh (Note. Not accessible)







"MTFs with elementary certification or licensure should teach mathematics and/or science for at least 50% of their classroom teaching responsibilities" (p. 15)

Source: Robert Noyce Teacher Scholarship Program Solicitation in 2023

Note. MSU Noyce MTF program will verify the status of your course teaching responsibilities every year during your fellowship period.



Amount and Duration of Salary Supplements (Track 3: MTF)



"...While participating in the program and teaching in a high-need LEA, MTFs must receive <mark>a salary supplement of \$10,000 or more per year</mark> for each year of **the five-year teaching commitment period** (for those possessing a master's degree) or each of **the four-year teaching commitment** (for those possessing only a bachelor's degree) after earning the master's degree." (p.15)

Source: Robert Noyce Teacher Scholarship Program Solicitation in 2023

- MSU Cohort 1 Noyce Master Teaching Fellows: Fellows possess a master's degree
- MSU Cohort 2 Noyce Master Teaching Fellows: Fellows only possess a bachelor's degree in Education or STEM



MSU Noyce Cohort 2 Fellows: MTFs who do not start the Noyce program with a master's degree



"...must be enrolled in and complete an education or STEM master's degree program during their first year of participation. ..., MTFs must complete the master's degree in **their first year of the MTF program** and a maximum of one year cost of attendance support (counted as the salary supplement for year one) may be offered only in the final year of the master's degree program." (p. 15)

NOTE: For Track 3 projects, "one year" may include <mark>up to 14 months</mark> in order to allow for two summers as part of the master's degree program<mark>. MTFs may not begin receiving</mark> the other four years of salary supplements until the master's degree has been completed."

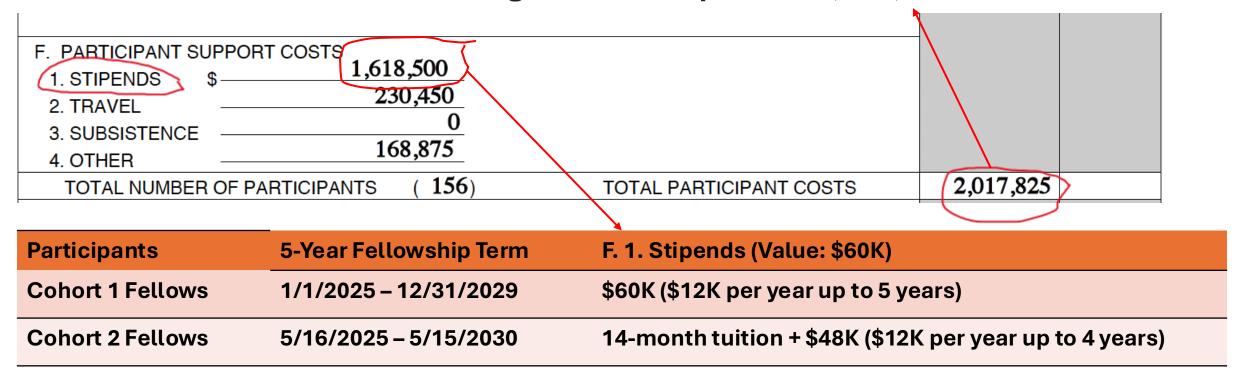
Source: Robert Noyce Teacher Scholarship Program Solicitation at <u>https://nsf-gov-</u> resources.nsf.gov/solicitations/pubs/2023/nsf23586/nsf23586.pdf?VersionId=tIBkInkkl YPxzBOh.UhQ7u.NFHXKYFBh



MSU Noyce MTF Budget

EDUCATION, HEALTH & HIIMAN DEVELOPMENT

Total Awarded Budget: \$2,999,688 Total Awarded Budget for Participants: \$2,017,856



Projected Agreement Signing Date: October 2024

Reminder: A recommendation letter, including consent for this agreement from your school principal or superintendent, is required.



Projected Noyce Paycheck/Stipend Calendar



Cohort	Semes ter	2024	2025	2026	2027	2028	2029	2030	r
1¶ (<mark>\$60K:¶</mark>	Spring	¤	\$4K(Mar.) Group A)¤	\$4K¶ (May)¤	\$4K (May)¤	\$4K (May)¤	\$4K (May)¤	¤	r
\$12K per yr. up to 5	Summer + Fall	¤	\$4K (Sep.)	\$4K¶ (Sep.)■	\$4K (Sep.)	\$4K ∙ (Sep.)¤	\$4K¶ (Aug.)¤	¤	r
yrs.)¤	Winter¤	¤	\$4K (Dec.)	\$4K¶ (Dec.)=	\$4K (Dec.)	\$4K ∙ (Dec.)¤	\$4K ∙ (Dec.)¤	\$4K(May.) Group B)¤	r
2 (<mark>\$60K</mark> :	Spring	¤	Bonus tuition 2¤	Tuition 3	\$4K¶ (May)⊐	\$4K (May)	\$4K¶ (May)¤	\$4K¶ (May)¤	r
Tuition +\$12K per	Summer + Fall	¤	Tuition 1 1 + \$2000	Tuition 4+ \$?¤ \$4K (Sep.)¤	\$4K (Sep.)	\$4K¶ (Sep.)¤	\$4K¶ (Aug.)¤	¤	r r
yr. up to 4 yrs.)	Spring	Bonus tuition 1¤	Tuition 2 ^a	\$4K¶ (Dec.)¤	\$4K (Dec.)	\$4K <mark>∏</mark> (Dec.)¤	\$4K¶ (Dec.)¤	¤	r

NOTE:

- 1. The MSU Noyce program will try to process your paycheck/stipend by the end of the scheduled month. However, it could take you one or two more months to receive it.
- 2. The term "fellowship" means funds awarded ...in the NSF Master Teaching Fellowships Track to a STEM teacher (in which case the funds are also referred o as a salary supplement)(p.8).



Recipient Obligations



An institution receiving a grant under Track 1: S &S, Track 2: TF, or T<mark>rack 3: MTF</mark> agrees to:

- 1. ensure that Noyce recipients accept the terms of the scholarship, stipend, or fellowship and that recipients provide annual certification of employment and updated contact information;
- 2. supply to NSF relevant statistical and demographic data on Noyce recipients
- 3. cooperate with NSF third-party project monitoring that will require annual data collection; and
- 4. monitor, track, and report on the compliance of Noyce recipients with their teaching service commitments.
- collect and report data on recipients' persistence as classroom teachers beyond their service commitments; the reporting requirement may extend for up to 12 years following the end date of the award and submission of the final project report.



Recipient Obligations



"...the recipient will be required to repay all or a portion of the scholarship, stipend, or fettomy by the scholarship if the recipient:

- 1. fails to maintain an acceptable level of academic standing in the program in which the individual is enrolled;
- 2. is dismissed from the program or institution for disciplinary reasons;
- 3. withdraws from the institution or program before completion of program requirements;
- 4. declares that the teaching service commitment will not be fulfilled; or
- 5. fails to fulfill the teaching service commitment.

If such circumstances occur <mark>before</mark> the completion of one year of the teaching service commitment under any track, <mark>the total amount</mark> of scholarship, stipend, or fellowship received by the individual <mark>must be repaid</mark>. If the circumstance occurs after the completion of one year of the teaching service commitment,

the amount to be repaid will be as follows:

Track 3: MTF - one-half of the total amount of salary supplements received, including fellowship support in year one for MTFs without master's degrees."







The following description could be included in the MSU agreement projected to be signed in October for a Cohort 2 fellow:

"The full remaining balance of the Scholarship Loan and Stipend will become immediately due and payable in accordance with the terms of the Promissory Note and this Agreement, if the Fellow:

(1) fails to successfully complete the degree requirements of the Master Science in Science Program in the University's College of Letters and Science; or

(2) resigns or is terminated from employment by the School District.



MSU Noyce Fellowship Agreement & Promissory Note I.B: Fulfill Teaching Service Commitment and Leadership Role



- 1. Serving as a full-time STEM teacher in a high-need LEA for a total of five years (Note. Teacher Retention).
- 2. Assuming a teacher leadership role within the school or high-need LEA where the MTF is employed, while meeting the teaching service commitment determined by the school and Montana State University, in addition to regular classroom responsibilities. Examples of such leadership activities include mentoring, participating in curriculum development, assisting with the planning and implementation of professional development experiences, and contributing to pre-service teacher education.
- 3. Taking on a leadership role in a regional, state, or national professional organization or development event as a lead person at least twice during the five-year fellowship term. Examples of such leadership activities include serving as a board member of a regional, state, or national professional education organization or leading a professional development.





MSU Noyce Fellowship Agreement & Promissory Note I.C: Professional Development Growth

Professional	Date/Time	Duration 4	Expectation	
Development/Learning-				
Joint Meeting of Montana STEM Summer Institute (SSI) (School Services of Montana) and Annual STEM Leadership Academy (MSU Noyce Project Team	Between late July and early August	5 days	75%+ participation rate	
Online Monthly Meeting	3 rd Wed. per month at 7:00 pm	1 hour per meeting & 4 meeting per semester	Network with at least 1 MTF not in your school district	
In-State Conferences & Training: MFPE, OPI Summer Institute, MCubed	¤	¤	Network with MTFs	
Out-State Conferences & Training: WRNN (Western Regional Noyce Network, Noyce Summit,	X	¤	Optional 🖻	

Monthly Meetings (Online)

- October 2, 2024 Noyce Team Social Check-In
- December 4, 2024 Noyce Team Social Check-In
- January 22, 2025 Noyce Professional Learning #1
- February 9, 2025 Student Engagement in STEM
- April 23, 2025 What Does It Mean to Be a Noyce MTF?
- May 21, 2025 Connecting Formal and Informal STEM Learning

These sessions included sharing innovative projects, such as using the ellipse equation on Desmos to design the Flathead Nation's flags.

Conference Participation (In-Person)

Despite being in its first year, the project has made significant progress in enhancing MTFs' professional growth in STEM education by supporting their participation in both in-state and out-of-state conferences:

- 2024 STEM Summer Institute (Aug 5–7, MSU)
- 2024 MFPE Educator Conference (Oct 17–18, Bozeman)
- 2025 WRNN Conference (Feb 21–23, San Diego, CA))
- Upcoming:
 - o 2025 OPI Summer Institute
 - o 2025 STEM Summer Institute
 - o 2025 Noyce Summit (Washington, D.C)
 - o 2025 NCTM Annual Meeting (Atlanta, GA)





What other evidences may MSU Noyce MTF program collect and measure?

1. Lead a STEM extracurricular activity (e.g., FIRST Robotics Competition, Science Fair, Science Olympiad, MathCounts, community STEM day)

2. Increase STEM achievement scores for All Students

3. Develop and implement a culturally responsive STEM curriculum

4. Provide a STEM PD workshop (e.g., SSI, MFPE, MCubed speaker, OPI Learning Hub leader)

5....



IRB Human Subjects



- Please help Dr. Fenqjen Luo, the PI of the MSU Noyce MTF program, facilitate the IRB protocol application for Tribal IRBs.
- Please add Dr. Luo to your IRB applications for the research (e.g., your action research in MSSE coursework) sponsored by this grant program.

Project Title	Protocol #	Expired	Institution
Rural and American Indian School Educators as Science, Technology, Engineering, and Mathematics Leaders (RAISE STEM Leaders)	2023-1265-EXEMPT	12/22/2028	MSU
Building Capacity to Develop STEM Teacher Leaders in Montana Rural and American Indian Schools	2023-11-Luo 2022-418-EXEMPT	5/26/2024 11/2/2027	Salish Kootenai College MSU







1. Are Noyce participants responsible for travel expenses?

MSU's Noyce program will support fellows for attending the joint meeting of STEM Summer Institute Annual STEM Leadership Academy from summer 2025 to summer 2029 and two out-of-state Noyce meetings

MSU's Noyce program may not be able to support other PD travel expenses. Fellows may need to use their Noyce stipends to cover additional travel.

2. Can onine meetings be used to take the place of in-person visits?

No.

3. Is Noyce responsible for expenses on course credits?

Noyce program only pays tuition or credit hours and fee for fellows who don't have a master's degree

4. ...