AISES

NATIONAL CONFERENCE

OCT 2 - 4, 2025 | MINNEAPOLIS, MN

2025 RUBRIC OVERVIEW

Our grandmothers were scientists. Our children will be too. We are all scientists.

summer/fall 2025

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THE AISES RESEARCH COLLECTIVE MEMBERS

Dr. Kathy DeerInWater
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WELCOME & OVERVIEW

MISSION

To evaluate and celebrate the AISES student research presentations through frameworks that honor Traditional Ecological Knowledge, community-based methodologies, and Indigenous ways of knowing alongside academic excellence.

VISION

A future where Indigenous Knowledge systems are valued equally with Western scientific approaches, where Indigenous students see their cultural knowledge as a strength in STEM fields, and where academic institutions embrace Indigenous research methodologies as rigorous and essential contributions to addressing global challenges.

Welcome Message from AISES Leadership

Welcome to the AISES Research Competition! Thank you for joining us in this groundbreaking effort to center Indigenous ways of knowing within STEM education. Your expertise and commitment to supporting fellow AISES members makes this historic competition possible. Together, we are creating new pathways for recognizing the brilliance of Indigenous researchers across all membership levels and validating Traditional Ecological Knowledge as essential to scientific advancement.

- Dr. Kathy DeerInWater

Cherokee

Vice President of Programs, AISES

EVAULATION PHILOSOPHY

INDIGENOUS CENTERED ASSESSMENT

Our updated rubric recognizes that excellence in Indigenous research extends beyond conventional academic metrics to include culturally grounded approaches that honor Indigenous ways of knowing. AISES members may demonstrate research excellence through community engagement, cultural responsiveness, and methodologies that reflect Indigenous values and protocols. The evaluation framework validates diverse forms of scholarly rigor while maintaining high standards for research quality and impact. This approach ensures that our participants are assessed fairly using criteria that recognize their unique contributions to STEM fields.

This rubric recognizes that excellence in Indigenous research may be demonstrated through:

- Community impact and reciprocity
- Cultural protocol adherence and respect
- Integration of Traditional Ecological Knowledge
- Collaborative and relational research approaches
- Data sovereignty and community accountability measures
- Storytelling and oral tradition as valid methodology

RETHINKING EVALUATION FOR TOMORROW'S CHALLENGES

In a society facing complex cultural, environmental, economic, political, health and scarcity issues, traditional approaches to evaluation will no longer suffice. Our updated rubric recognizes that what will be required from future STEM leaders is a new set of aptitudes that include imagination, inventiveness, collaboration, openness, adaptability, and flexibility - particularly the ability to integrate Indigenous knowledge systems with Western scientific approaches. Education has always played a fundamental role in preparing our children to become engaged citizens of the world, and there is no better way to make change happen than to begin rethinking how we evaluate and support our future Indigenous STEM leaders.

Aligning with AISES Values

This competition directly advances AISES's core mission of increasing Indigenous representation and success in STEM by:

- **Honoring Indigenous Knowledge** as valid and rigorous scientific inquiry
- **Building student confidence** through culturally responsive evaluation
- **Creating belonging** by validating students' cultural identities within STEM
- **Establishing pathways** for Indigenous students to see themselves as STEM leaders
- **Demonstrating institutional commitment** to Indigenous student success
- **Fostering community connections** between education and tribal nations
- **Advancing equity** by transforming how academic excellence is defined and measured

RUBRIC GUIDELINES

Our updared rubric has been specifically designed to evaluate student research through an Indigenous Knowledge lens, recognizing Traditional Ecological Knowledge, community-based methodologies, and Indigenous ways of knowing as rigorous and valuable approaches to scientific inquiry.

EVALUATION PRINCIPLES & PILLARS

The AISES Research Competition centers four key evaluation pillars that recognize the holistic development of AISES members in STEM fields. This framework moves beyond traditional academic metrics to evaluate how research experiences build members' identity, confidence, and commitment to STEM pathways. By focusing on these interconnected areas, judges can assess not only the quality of research but also its impact on members' growth as Indigenous STEM leaders. This approach ensures that evaluation recognizes both academic excellence and the cultural grounding that strengthens AISES members' success in STEM fields.

INTEREST IN STEM	Evidence of genuine curiosity, passion, and engagement with scientific inquiry and STEM fields
ENGAGEMENT IN STEM / SENSE OF BELONGING	Connection to STEM communities, identity as a scientist, and feeling of belonging in STEM spaces
STEM COMPETENCIES / CONFIDENCE	Demonstration of STEM skills, knowledge, and self-efficacy appropriate to education level
FUTURE INTENTIONS TO PERSIST / PURSUE STEM CAREERS	Career aspirations and commitment to continued STEM involvement

WHAT MAKES THIS RUBRIC DIFFERENT

Cultural Integration is Valued
Unlike traditional academic rubrics that focus solely on technical skills, this evaluation recognizes and celebrates the integration of Indigenous knowledge systems, traditional methodologies, and cultural perspectives as strengths that enhance scientific work.

Community Impact Priority
Research that serves Indigenous communities or incorporates traditional knowledge receives the highest recognition, reflecting AISES' commitment to community-centered science.

Growth-Oriented
The rubric emphasizes development, persistence, and future potential rather than just current technical achievement, supporting students at all stages of their STEM journey.

Holistic Assessment
Beyond research quality, the evaluation considers the whole person - their identity, engagement, confidence, and commitment to using STEM for positive community impact.

KEY PRINCIPLES FOR FAIR EVALUATION

Level-Appropriate Expectations: Excellence looks different at every education level. A exceptional middle school presentation focuses on curiosity and basic community connections, while exceptional graduate work demonstrates sophisticated methodology integration and advanced community impact planning.

Cultural Competency: Judges are trained to recognize and value Indigenous research approaches, traditional knowledge systems, and community-based methodologies as legitimate and valuable scientific practices.

Strength-Based Focus: Rather than deficit thinking, this rubric identifies and builds upon the unique strengths Indigenous students bring to STEM, including cultural knowledge, community connections, and diverse perspectives.

Future-Oriented: The evaluation considers not just what students have accomplished, but their potential for continued growth and contribution to Indigenous representation in STEM fields.

IMPLEMENTATION INSTRUCTIONS

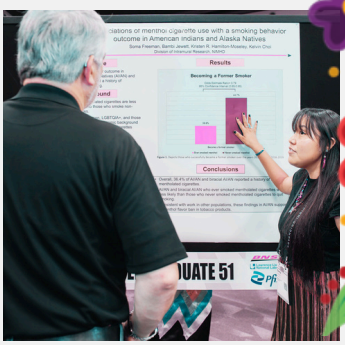
INSTRUCTIONS FOR JUDGES

Each presentation should be evaluated holistically, considering both academic rigor and Indigenous Knowledge integration. Look for evidence of community connection, cultural grounding, and research that honors Indigenous ways of knowing while addressing important questions or challenges.

Each pillar is scored on a 4-point scale with level-appropriate expectations:

- 4 - Exceptional: Exceeds expectations for education level
- 3 - Proficient: Meets expectations for education level
- 2 - Developing: Approaching expectations for education level
- 1 - Beginning: Below expectations, needs significant development

We included "Look for" and "What this looks like" sections specifically for middle and high school students because:



- Younger students may not naturally know how to showcase their interests, belonging, competencies, and future intentions during presentations
- The four pillars represent complex ideas that can be challenging for younger students to understand and demonstrate
- Middle and high school students often need more support to feel confident presenting to adult judges

This approach ensures younger students receive appropriate support and recognition while maintaining high expectations for all education levels, ultimately supporting the AISES mission of increasing Indigenous representation across the entire STEM ecosphere.

INSTRUCTIONS FOR STUDENTS

Things look a little different this year. We updated our rubric to better align with our mission by recognizing Indigenous ways of knowing, traditional methodologies, and community-centered research. Our new evaluation tool focuses on your growth, cultural integration, engagement, and commitment to using STEM for positive community impact - not just technical skills. Our judges will be trained to recognize and value these diverse strengths, ensuring your holistic perspective as an AISES member is fully appreciated.

INTEREST IN STEM

- Show your genuine curiosity and passion for your research topic
- Explain why your research matters to you personally
- Connect your work to community needs when possible
- Let your enthusiasm shine through!

ENGAGEMENT & SENSE OF BELONGING

- Present with confidence - you belong in STEM spaces
- Share how your cultural background strengthens your research
- Mention learning from family, community members, or traditional knowledge
- Show pride in both your research and your identity

STEM COMPETENCIES & CONFIDENCE

- Demonstrate your understanding of relevant STEM concepts
- Explain your methods clearly and confidently
- Show how you've integrated different ways of knowing
- Be prepared to answer questions about your work

FUTURE INTENTIONS

- Share your plans for continued STEM education or career
- Explain how you want to use STEM to help your community
- Show your commitment to persisting in STEM despite challenges
- Describe your vision for making a positive impact

KEY TIPS FOR SUCCESS

Be Yourself.

AUTHENTICITY IS VALUED OVER PERFECTION

Tell Your Story.

EXPLAIN YOUR PERSONAL CONNECTION TO YOUR RESEARCH

Share Your Culture.

TRADITIONAL KNOWLEDGE AND INDIGENOUS PERSPECTIVES ARE RECOGNIZED AND VALUED

Stay Confident.

YOU'RE THE EXPERT IN YOUR RESEARCH TOPIC

Think Community.

EXPLAIN HOW YOUR WORK CAN BENEFIT OTHERS

AISES RESEARCH RUBRIC

2025

TOTAL SCORE SUMMARY

PILLAR	SCORE	POINTS
INTEREST IN STEM	___ / 4	___ /25
ENGAGEMENT & BELONGING	___ / 4	___ /25
STEM COMPETENCIES	___ / 4	___ /25
FUTURE INTENTIONS	___ / 4	___ /25
TOTAL	___ / 16	___ /100

FEEDBACK SECTION

WHAT WENT WELL... _____

_____

_____

EVEN BETTER IF... _____

_____

_____

INTEREST IN STEM

	1 - Beginning	2 - Developing	3 - Proficient	4 - Exceptional
Curiosity & Wonder	Shows limited curiosity about scientific questions	Shows some curiosity but not sustained	Demonstrates clear curiosity and asks questions	Shows deep curiosity; naturally asks "why" and "how"
Passion for Learning	Little enthusiasm for learning new concepts	Shows basic interest in learning	Demonstrates clear enthusiasm for discovery	Shows genuine excitement about learning and discovery
Research Motivation	Shows little understanding of why they chose topic	Some personal connection but unclear reasoning	Clear explanation of what motivated their research	Strong, authentic motivation; compelling "why" story
Community-Connected Interest	No connection between interests and community	Mentions community but connection unclear	Shows interest in community-relevant research	Strong interest in research that serves Indigenous communities

EVIDENCE OBSERVED

- ☐ **CURIOSITY & WONDER**
  Student shows genuine interest in exploring scientific questions
- ☐ **PASSION FOR LEARNING**
  Student demonstrates enthusiasm for discovering new knowledge
- ☐ **RESEARCH MOTIVATION**
  Student shows authentic reasons for choosing their research topic
- ☐ **COMMUNITY-CONNECTED INTEREST**
  Student connects research to Indigenous communities or knowledge

PILLAR 1 OVERALL SCORE:

___/4 POINTS:
X6.25

___/25 SCORE

ENGAGEMENT & BELONGING

	1 - Beginning	2 - Developing	3 - Proficient	4 - Exceptional
STEM Identity	Doesn't see self as capable in STEM	Uncertain about STEM abilities	Shows confidence in STEM capabilities	Strong identity as scientist; believes "STEM is for me"
Community Engagement	No engagement with STEM communities	Limited STEM community participation	Participates in STEM activities/groups	Actively seeks STEM community connections
Cultural Integration	No integration of cultural identity	Mentions culture but not connected to STEM	Integrates cultural identity with STEM work	Strong integration of Indigenous identity and STEM
Indigenous Knowledge Recognition	No recognition of Indigenous knowledge	Mentions traditional knowledge superficially	Recognizes Indigenous contributions to science	Values and incorporates Indigenous knowledge systems

EVIDENCE OBSERVED

- ☐ **STEM IDENTITY**
  Student shows confidence and sees themselves as belonging in STEM
- ☐ **COMMUNITY ENGAGEMENT**
  Student participates in or connects with STEM communities
- ☐ **CULTURAL INTEGRATION**
  Student integrates Indigenous identity with STEM work
- ☐ **INDIGENOUS KNOWLEDGE RECOGNITION**
  Student values/incorporates traditional knowledge systems

PILLAR 2 OVERALL SCORE:

___/4 POINTS:
X6.25

___/25 SCORE

STEM COMPETENCIES

	1 - Beginning	2 - Developing	3 - Proficient	4 - Exceptional
Research Skills	Limited research skills for level	Basic research skills with guidance	Solid research skills appropriate to level	Advanced research skills; exceeds expectations
Methodology Integration	No integration of diverse methodologies	Basic understanding of different approaches	Integrates Western and Indigenous methods	Sophisticated integration of multiple methodologies
Problem-Solving	Little evidence of problem-solving	Some problem-solving with assistance	Clear problem-solving approach	Creative, independent problem-solving
Self-Efficacy	Low confidence in STEM abilities	Some confidence with encouragement	Shows confidence in STEM work	High confidence; believes in their STEM potential

EVIDENCE OBSERVED

- ☐ **RESEARCH SKILLS**
  Student demonstrates appropriate STEM understanding for their level
- ☐ **METHODOLOGY INTEGRATION**
  Student integrates diverse methodologies or knowledge systems
- ☐ **PROBLEM-SOLVING**
  Student applies STEM thinking to address questions or challenges
- ☐ **SELF-EFFICACY**
  Student shows confidence in their STEM and cultural abilities

PILLAR 3 OVERALL SCORE:

___/4 POINTS:
X6.25

___/25 SCORE

FUTURE INTENTIONS

	1 - Beginning	2 - Developing	3 - Proficient	4 - Exceptional
Goal Setting	Unclear or no future STEM goals	Basic goals mentioned	Clear, realistic STEM goals	Detailed, inspiring STEM trajectory
Persistence Mindset	Shows little commitment to continue	Some commitment despite challenges	Shows determination to persist in STEM	Strong resilience; committed to overcoming barriers
Community Impact	No vision for community benefit	Mentions helping community generally	Clear vision for using STEM for community	Strong commitment to Indigenous community service
Growth Orientation	Little interest in continued learning	Some interest in continued development	Shows commitment to continued growth	Strong commitment to bridging knowledge systems

EVIDENCE OBSERVED

- ☐ **GOAL SETTING**
  Student articulates clear future STEM plans and aspirations
- ☐ **METHODOLOGY INTEGRATION**
  Student integrates diverse methodologies or knowledge systems
- ☐ **PROBLEM-SOLVING**
  Student applies STEM thinking to address questions or challenges
- ☐ **SELF-EFFICACY**
  Student shows confidence in their STEM and cultural abilities

PILLAR 3 OVERALL SCORE:

___/4 POINTS:
X6.25

___/25 SCORE

EXCEPTIONAL GUIDELINES BY EDUCATION LEVEL

2025

INTEREST IN STEM	Middle School / High School Undergraduate / Graduate
ENGAGEMENT & BELONGING	Middle School / High School Undergraduate / Graduate
STEM COMPETENCIES	Middle School / High School Undergraduate / Graduate
FUTURE INTENTIONS	Middle School / High School Undergraduate / Graduate

Pillar 1: Interest in STEM

Evidence of genuine curiosity, passion, and engagement with scientific inquiry and STEM fields

Evaluation Criteria	Curiosity & Wonder	Passion for Learning	Question Generation	Community-Connected Interest
	Shows genuine interest in exploring scientific questions and STEM concepts	Demonstrates enthusiasm for discovering new knowledge in STEM areas	Asks thoughtful questions and shows inquisitive thinking	Shows particular interest in STEM that can benefit Indigenous communities or incorporates Indigenous knowledge

Exceptional (4) Scoring Guidelines by Level:

Middle School

- Shows natural curiosity about how things work (asks questions like "Why does this happen?" "How does this work?")
- Gets excited when talking about their project or STEM topics (animated, engaged, enthusiastic body language)
- Makes connections between their project and Indigenous communities or traditional practices (even basic connections)
- Shows they chose their topic because they care about it, not just for an assignment

Look for:

Genuine excitement, personal connection to topic, basic understanding of community relevance

This could look like:

Student lights up when explaining their project on water quality because they want to help ensure clean water on their reservation, or gets excited about plant growth experiments because their grandmother taught them about traditional farming methods

High School

- Displays sustained interest in STEM subjects
- Pursues STEM activities beyond required coursework
- Shows enthusiasm when explaining STEM concepts
- Demonstrates growing passion for STEM that can benefit Indigenous communities or connects to traditional knowledge

Look for:

Self-directed learning, clear purpose, evidence of ongoing engagement, community connection

This could look like:

Student spent months researching diabetes prevention because it affects their community, incorporated traditional foods into their research, or developed ongoing interest in renewable energy after learning about tribal energy sovereignty.

Pillar 1: Interest in STEM

Evidence of genuine curiosity, passion, and engagement with scientific inquiry and STEM fields

Evaluation Criteria	Curiosity & Wonder	Passion for Learning	Question Generation	Community-Connected Interest
	Shows genuine interest in exploring scientific questions and STEM concepts	Demonstrates enthusiasm for discovering new knowledge in STEM areas	Asks thoughtful questions and shows inquisitive thinking	Shows particular interest in STEM that can benefit Indigenous communities or incorporates Indigenous knowledge (highly valued)

Exceptional (4) Scoring Guidelines by Level:

Undergraduate	• Shows deep engagement with chosen STEM field • Pursues independent STEM learning and research • Demonstrates genuine excitement about STEM discoveries • Shows particular interest in research or applications that serve Indigenous communities or integrate traditional knowledge
Graduate / Professional	• Shows sophisticated passion for advancing STEM knowledge • Demonstrates sustained commitment to STEM inquiry • Exhibits enthusiasm for sharing STEM knowledge with Indigenous communities • Actively works to integrate Indigenous knowledge systems with STEM fields or conducts community-based research

Pillar 2: Engagement in STEM/ Sense of Belonging

Connection to STEM communities, identity as a scientist, and feeling of belonging in STEM spaces

Evaluation Criteria	STEM Identity	Community Engagement	Cultural Integration	Indigenous Knowledge Recognition
	Sees themselves as capable of doing science and belonging in STEM	Participates in or connects with STEM communities and activities	Successfully integrates Indigenous identity, knowledge, or methodologies with STEM participation (prioritized and highly valued)	Values and incorporates traditional knowledge systems, community-based approaches, or Indigenous research methodologies (exceptional recognition)

Exceptional (4) Scoring Guidelines by Level:

Middle School

- Shows confidence that they can be successful in STEM
- Participates eagerly in STEM activities and discussions
- Demonstrates pride in Indigenous identity while engaging with STEM
- Shows awareness of how Indigenous knowledge connects to science (traditional ecological knowledge, traditional medicine, etc.)

Look for:

Confidence in presentation, pride in identity, mentions of cultural learning, basic understanding of Indigenous science

This could look like:

Student confidently explains their project, mentions learning from their grandfather about traditional plant uses, or talks about how Indigenous people have always studied the environment.

High School

- Actively participates in STEM clubs, competitions, or programs
- Shows confidence in STEM abilities and potential
- Demonstrates understanding of Indigenous contributions to science and technology
- Successfully integrates cultural knowledge or community perspectives into STEM work

Look for:

Strong presentation skills, positive cultural identity, evidence of community learning, historical awareness

This could look like:

Student presents confidently, explains how traditional ecological knowledge informed their environmental research, mentions participating in cultural science programs, or discusses Indigenous innovations they've learned about.

Pillar 2: Engagement in STEM/ Sense of Belonging

Connection to STEM communities, identity as a scientist, and feeling of belonging in STEM spaces

Evaluation Criteria	STEM Identity	Community Engagement	Cultural Integration	Indigenous Knowledge Recognition
	Sees themselves as capable of doing science and belonging in STEM	Participates in or connects with STEM communities and activities	Successfully integrates Indigenous identity, knowledge, or methodologies with STEM participation (prioritized and highly valued)	Values and incorporates traditional knowledge systems, community-based approaches, or Indigenous research methodologies (exceptional recognition)

Exceptional (4) Scoring Guidelines by Level:

Undergraduate	• Engages with both Indigenous and academic STEM communities • Shows strong confidence in STEM abilities and cultural knowledge • Incorporates Indigenous methodologies, community-based approaches, or traditional knowledge into STEM work • Demonstrates sense of belonging as an Indigenous person in STEM
Graduate / Professional	• Demonstrates strong identity as an Indigenous STEM professional • Actively contributes to both STEM and Indigenous communities • Uses Indigenous methodologies, community-based participatory research, or traditional knowledge systems in their work • Mentors others in bridging Indigenous knowledge and Western STEM approaches

Pillar 3: STEM Competencies / Confidence

Demonstration of STEM skills, knowledge, and self-efficacy appropriate to education level

Evaluation Criteria	Research Skills	Methodology Integration	Problem-Solving	Self-Efficacy
	Appropriate methodology, data collection, and analysis for level	Shows ability to integrate Indigenous methodologies, community-based approaches, or traditional knowledge systems with STEM methods	Applies STEM thinking to address questions or challenges, especially those relevant to Indigenous communities	Shows confidence in their STEM abilities and cultural knowledge as complementary strengths

Exceptional (4) Scoring Guidelines by Level:

Middle School

- Demonstrates solid grasp of basic STEM concepts for their level
- Shows confidence when explaining their work or answering questions
- Shows awareness of how traditional knowledge connects to STEM concepts
- Believes they can bridge cultural knowledge and STEM learning

Look for:

Confidence in presentation, pride in identity, mentions of cultural learning, basic understanding of Indigenous science

This could look like:

Student confidently explains their project, mentions learning from their grandfather about traditional plant uses, or talks about how Indigenous people have always studied the environment.

High School

- Shows strong understanding of STEM concepts and methods
- Demonstrates confidence in tackling STEM challenges
- Can explain how traditional knowledge complements or enhances STEM approaches
- Shows growing ability to integrate Indigenous perspectives with STEM work

Look for:

Strong presentation skills, positive cultural identity, evidence of community learning, historical awareness

This could look like:

Student presents confidently, explains how traditional ecological knowledge informed their environmental research, mentions participating in cultural science programs, or discusses Indigenous innovations they've learned about.

Pillar 3: STEM Competencies / Confidence

Demonstration of STEM skills, knowledge, and self-efficacy appropriate to education level

Evaluation Criteria	Research Skills	Methodology Integration	Problem-Solving	Self-Efficacy
	Appropriate methodology, data collection, and analysis for level	Shows ability to integrate Indigenous methodologies, community-based approaches, or traditional knowledge systems with STEM methods	Applies STEM thinking to address questions or challenges, especially those relevant to Indigenous communities	Shows confidence in their STEM abilities and cultural knowledge as complementary strengths

Exceptional (4) Scoring Guidelines by Level:

Undergraduate

- Demonstrates solid STEM competencies for their field and level
- Shows confidence in their ability to conduct STEM work
- Successfully integrates Indigenous methodologies or community-based approaches with Western STEM methods
- Can critically evaluate both traditional knowledge and Western STEM approaches

Graduate / Professional

- Shows advanced STEM competencies and expertise
- Demonstrates high confidence in their ability to bridge Indigenous knowledge and STEM
- Uses sophisticated Indigenous methodologies, community-based approaches, or traditional knowledge systems
- Mentors others in integrating Indigenous perspectives with STEM fields

Pillar 4: Future Intentions to Pursue and Persist in STEM

Evidence of commitment to continued STEM education, career goals, and community contribution

Evaluation Criteria	Goal Setting	Persistence Mindset	Community Impact	Growth Orientation
	Clear articulation of future STEM plans and aspirations	Shows resilience and commitment to overcoming challenges	Envisions using STEM to benefit Indigenous communities, incorporating traditional knowledge, or advancing Indigenous sovereignty	Demonstrates commitment to continued learning that bridges Western STEM and Indigenous knowledge systems

Exceptional (4) Scoring Guidelines by Level:

Middle School

- Expresses interest in continuing STEM education
- Shows curiosity about how STEM can help Indigenous communities
- Understands that traditional knowledge and STEM can work together
- Shows determination to succeed and help their community

Look for:

Basic career curiosity, community awareness, cultural pride, and determination to continue learning

This could look like:

Student expresses wanting to continue STEM education to help their community, connects future goals to traditional knowledge, shows determination despite challenges, or demonstrates understanding that STEM can benefit their tribe.

High School

- Has concrete plans for STEM education beyond high school
- Shows awareness of how to use STEM for Indigenous community benefit
- Plans to integrate traditional knowledge or community-based approaches in future STEM work
- Demonstrates resilience and commitment to serving Indigenous communities through STEM

Look for:

Strong presentation skills, positive cultural identity, evidence of community learning, historical awareness

This could look like:

Student has specific college/career plans focused on Indigenous community benefit, plans to integrate traditional knowledge in future STEM work, shows resilience in pursuing goals, or demonstrates commitment to serving Indigenous communities through STEM.

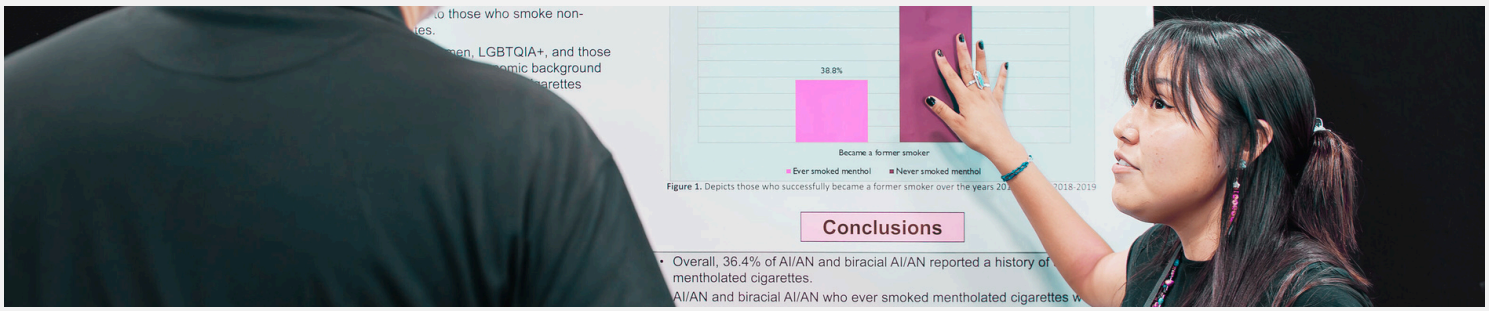
Pillar 4: Future Intentions to Pursue and Persist in STEM

Evidence of commitment to continued STEM education, career goals, and community contribution

Evaluation Criteria	Goal Setting	Persistence Mindset	Community Impact	Growth Orientation
	Clear articulation of future STEM plans and aspirations	Shows resilience and commitment to overcoming challenges	Envisions using STEM to benefit Indigenous communities, incorporating traditional knowledge, or advancing Indigenous sovereignty	Demonstrates commitment to continued learning that bridges Western STEM and Indigenous knowledge systems

Exceptional (4) Scoring Guidelines by Level:

Undergraduate	• Has clear post-graduation STEM goals focused on Indigenous community benefit • Shows persistence through academic challenges while maintaining cultural identity • Plans to use Indigenous methodologies or traditional knowledge in future STEM career • Demonstrates commitment to advancing Indigenous sovereignty through STEM
Graduate / Professional	• Demonstrates long-term commitment to Indigenous-centered STEM work • Shows evidence of persistence while maintaining connection to Indigenous communities • Has clear vision for advancing Indigenous knowledge systems within STEM fields • Actively works to decolonize STEM spaces and serves as a bridge between knowledge systems



RESOURCES & REFERENCES

TRIBAL COLLEGE
JOURNAL OF AMERICAN INDIAN HIGHER EDUCATION

THE 6 R'S OF INDIGENOUS RESEARCH

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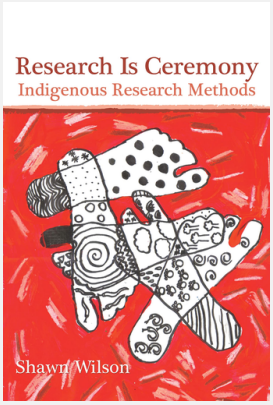

RESEARCH IS CEREMONY:
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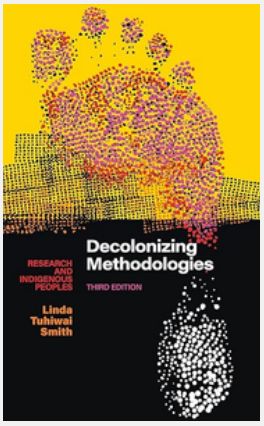

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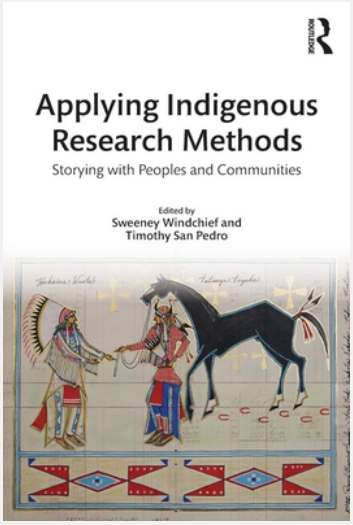

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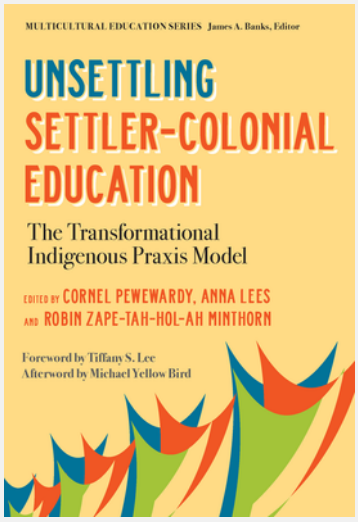

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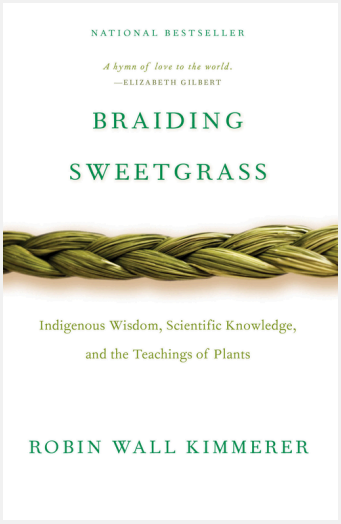

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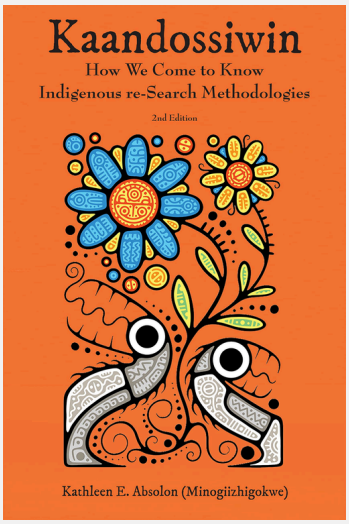

KAANDOSSIWIN

HOW WE COME TO KNOW:
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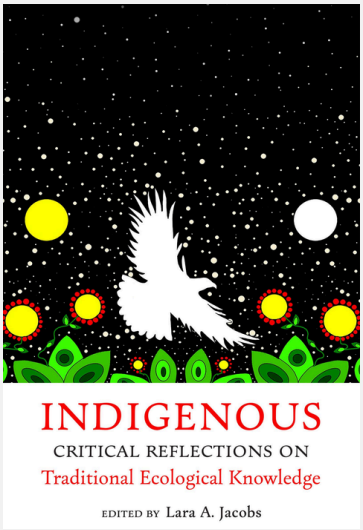

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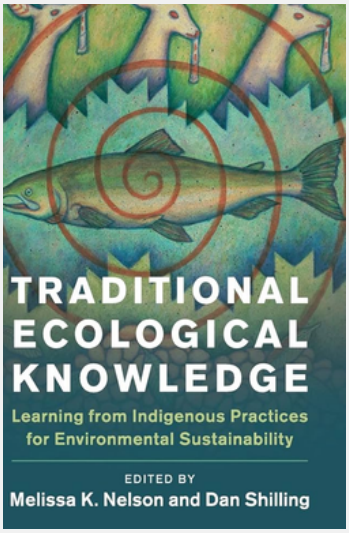

TRADITIONAL ECOLOGICAL KNOWLEDGE

LEARNING FROM INDIGENOUS PRACTICES FOR ENVIRONMENTAL SUSTAINABILITY

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