



# CIRCLES Newsletter

## ALLIANCE Winter 2024-2025

*Quarterly Notes from the Cultivating Indigenous Research Communities for Leadership in Education and STEM (CIRCLES) Alliance*

### Montana CIRCLES Collaborates on Family STEAM Night on the Flathead Reservation



Building on prior CIRCLES efforts in New Mexico, the Montana CIRCLES team partnered with the Boys and Girls Club of Lake County and the Flathead Reservation at a Family STEAM Night in Ronan, MT on February 26, 2024. Montana CIRCLES team members Aaron Thomas and Elle Findlay concocted liquid nitrogen ice cream while engaging informally with an estimated 150 elementary and middle school students and educators from communities on the Flathead Reservation, which is home to the Bitterroot Salish, Upper Pend d'Oreille, and Kootenai Tribes.

*A student dons a lab coat, gloves, and safety glasses to assist Aaron Thomas and Elle Findlay with a batch of liquid nitrogen ice cream.*

**Save the Date**  
for the  
**Annual CIRCLES Gathering**  
October 23-25, 2025  
Bismarck, North Dakota

Venue details, agenda, and travel and registration information will follow.



## Educators Engage with Culturally Respectful STEM Teaching Practices at CIRCLES Workshop

CIRCLES Curriculum Resources Development Facilitator Stephanie Higdon and South Dakota CIRCLES Advisory Team Member Mary Mitchell recently presented at the South Dakota STEM Education Conference in Huron, SD. Their workshop, “Culturally Respectful Teaching Practices in the Math and Science classroom,” gave teachers time to engage in a lesson they could implement with students. The lesson focused on creating vision boards for learning, which allow students to express their creativity, ask questions before starting a unit, voice their interests, and develop their math and science identity.



Educators viewed lesson introduction images and responded to four reflection questions:

1. What do you notice when you look at the images?
2. What questions do these images cause you to ask?  
What do you hope to learn in this unit?
3. How might this topic connect to your community?
4. What qualities of a mathematician/scientist will you bring to this unit?

Math educators were provided with recycling data from South Dakota, and science educators were shown images of three breathing beings from the state. After private reflections, educators worked in pairs to create vision boards to include their goals for learning, attributes they

would bring to the learning process, and questions they wanted to explore during the unit. At the close of the lesson, educator participants shared where they thought this lesson could inspire their own students for learning math and science. This lesson was adapted from a session Mitchell saw at the AISES conference in October 2024.



*Above: Co-facilitators Mary Mitchell (L) and Stephanie Higdon (R). Below: Educators create vision boards.*



## 2024 All-Alliance Gathering Features Local Place and Cross-State Collaboration



CIRCLES Alliance team members, advisors, and partners gathered in Riverton, Wyoming from October 17–19, 2024, to learn, plan, and reflect on our collaborative efforts to cultivate Indigenous STEM learning. The gathering included a field excursion to the Wind River Tribal Buffalo Initiative, a language and culture workshop with Wind River Tribal College President Marlin Spoonhunter, a guest expert talk with Shane Doyle, presentations by CIRCLES-affiliated students, and working sessions to foster cross-state collaboration among CIRCLES partners. The CIRCLES advisory board and evaluation team provided reflections and insights to deepen and extend our impact.

The evaluation team shared the following top-level findings from the event:

- **The 7Rs (core values guiding the CIRCLES Alliance) were clearly amplified and honored through building relationship to each other, the land, culture, and place.**
- **Space was created to ignite the cross-pollinating phase, and the time to meet across state teams generated new ideas and plans.**
- **Centering Indigenous student voices amplified the core purpose of this work, and was valued by the CIRCLES team and students.**



*Above: The CIRCLES Alliance toured the Wind River Tribal Buffalo Initiative. Below: WRTBI staff member Xavier Michael-Young (R) and graduate student researcher Albert Mason, Jr (L) discuss WRTBI's educational programs.*

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## 2024 All-Alliance Gathering (continued)



*Wind River Tribal College President Marlin Spoonhunter, above left with CIRCLES WY PI Tarissa Spoonhunter, led a Plains Sign Language workshop.*



*A student session included research presentations by Darwin St. Clair III (left) and Kaylee Brown (right), both supported by CIRCLES.*

### **Selected Feedback from the 2024 CIRCLES Gathering**

“It was really energizing to be in person and get to meet the collaborators, community, and students that Wyoming works with!”

“I really appreciated the focus on place and experiencing first-hand what place-based learning is all about.”

“The students were great to connect with to see their work, and it made it apparent how much overlap there is in the work across state teams. I liked the questions after and how the students got to see how their work was connected to this wider Alliance.”

“I really appreciated the [advisory board] session, and our state has re-listened to the recording to revisit key takeaways.”