impact

University of Idaho Extension programs that are making a difference in Idaho.

Teaching science and math through firsthand life experiences

AT A GLANCE

Reservation youth learn science and mathematics through firsthand experiences that apply STEM concepts in real-world settings, enhancing academic preparedness and confidence.

The Situation

This program has addressed a challenge that has been well documented in educational research: student achievement, particularly in mathematics, often declines during the summer months. Studies have found learning losses equivalent to approximately one month on a grade-level scale. For youth who already struggle with math during the school year, time away from the classroom can further widen academic gaps.

For 29 years, Nimiipuu Reservation youth entering grades 7-8, have had the opportunity to participate in what many consider a rite of passage: the PACE (Preparing for Academic Excellence) summer program. Due to a change in program management, it appeared that summer 2026 would mark the first time in nearly three decades that this opportunity would not be available to local youth.

The PACE program provided twenty students with ten days of high-quality, hands-on learning experiences that combined classroom instruction with educational field trips. Youth worked with a certified teacher, teen group counselors, guest educators and community partners to engage in meaningful academic and enrichment activities. Although PACE is a branded program, many of the educators who had previously



Youth prepare to learn about water by learning to kayak starting with kayak safety signals.

delivered the program alongside the University of Idaho Extension Nimiipuu Reservation program remained committed to ensuring that youth continued to have access to summer learning opportunities. These educators joined forces with other community partners to explore alternative programming that would keep students engaged, learning and connected throughout the summer.

Our Response

A dedicated group of educators came together to create the Tiwiyekt 2026 Science and Math Day Camp for 10 Nimiipuu youths. Tiwiyekt, meaning “advise, teach, instruct” in the Nez Perce language, was designed to blend cultural knowledge, environmental stewardship

University of Idaho Extension

UI Extension, Nez Perce Reservation
208-791-4087
95 Agency Rd. Lapwai, ID 83540

and academic enrichment through a two-week immersive learning experience.

Despite having only, a brief time to organize the new program, the team secured funding, developed curriculum, recruited presenters and built a schedule that combined classroom instruction with hands-on learning. Community response was overwhelming, and youth competed for the 10 available spots by submitting letters of interest.

Once the student offers were offered and confirmed, the program began with math and science assessments, allowing educators to tailor lessons to participants' needs. Mornings focused on classroom learning, while afternoons featured educational field trips to partners such as Lewis-Clark State College and Schweitzer Engineering Laboratories. A four-day, three-night camping and kayaking trip on the Selway River brought science concepts to life through direct experiences with natural resources and environmental systems. For all the youth participants, learning from the seat of a kayak while exploring their homelands was the highlight of the camp.

They learned about our pollinator relatives, outdoor survival skills, water science, Nez Perce history, Nez Perce language, potential career pathways. They studied water samples, water turbulence, plant science and so much more from the seat of a kayak.

Program Outcomes

The inaugural Tiwiyekt camp successfully provided a meaningful summer learning opportunity that strengthened academic skills, fostered cultural connections and inspired youth to become future stewards of the land and water as identified in the post survey and post skills test.

After the testing on the last day of the camp, the students enjoyed a pizza luncheon with their families and invited guests at the awards assembly. The results of the surveys were also provided.

- All 10 youth (100%) stated they felt like they learned important math and science concepts after taking part in the program.
- 80% of the youths, 8/10 showed vast growth in their pre- and post-math skills test.
- All the youths shared comments that they were concerned about their ability to kayak before the camp but felt greater confidence in their ability after being on the river.
- 70% of the students wanted to know when we would take them kayaking next and made us promise to take them again.
- Several youth participants and their parents shared comments that they appreciated the efforts that went into carrying on this type of camp after its potential extinction.



Tiwiyekt participants visit Spaulding Park Museum to learn about the history of Nimiipuu.

The Future

The Tiwiyekt planning team has already begun seeking funding for the summer of 2027 through grant writing and partner support. The team plans to continue the kayaking and river education component while incorporating cultural knowledge and traditional teachings.

Cooperators and Co-Sponsors

University of Idaho Extension, Nez Perce Reservation; Apple Corporation; Nez Perce Tourism; Titooqanawit; Sapooq'is Wiitas Consulting; Great Rift Outfitting.

FOR MORE INFORMATION

Danielle Scott, Extension Educator • University of Idaho Extension, Nez Perce Reservation • 208-791-4087 • dnscott@uidaho.edu

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