



STEM Initiatives on the Shoshone-Bannock Reservation

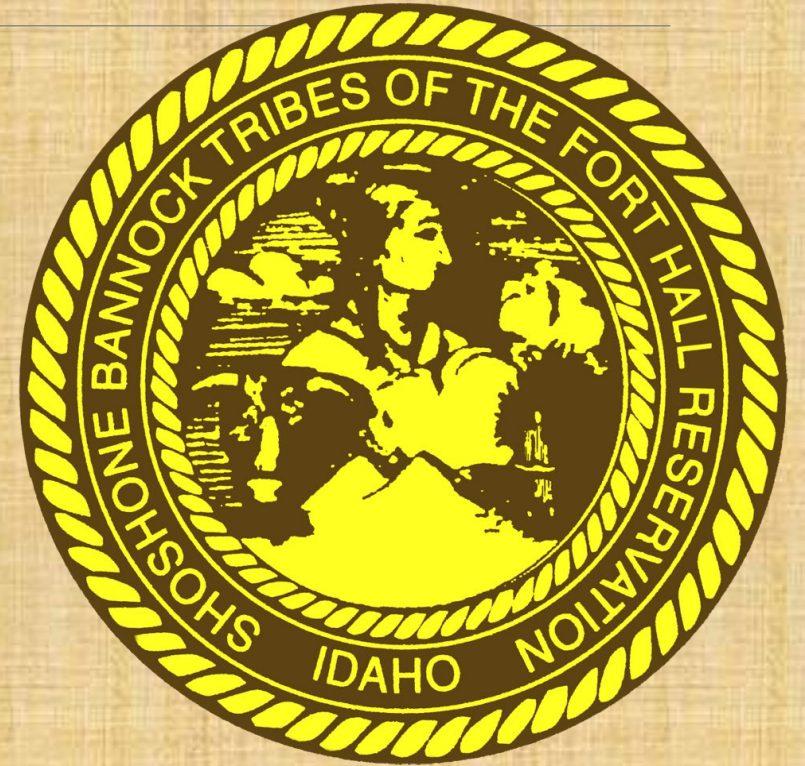
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TRIBAL EDUCATION PROGRAM
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Community & STEM

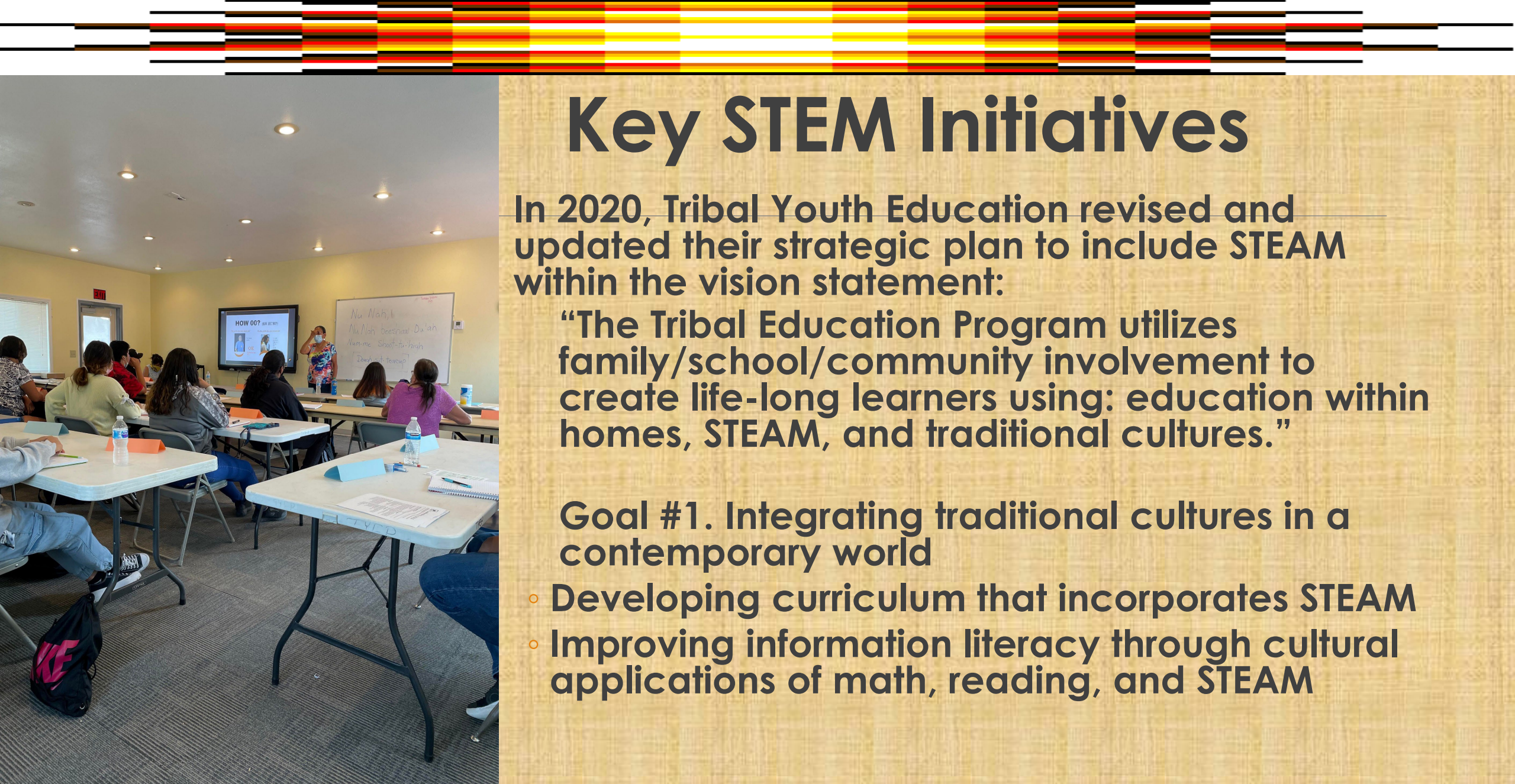
- ❖ The reservation land base is 544,000 acres. 110,000 acres are dedicated to farming.
- ❖ The Shoshone-Bannock Tribes encompasses land within four counties, five school districts, and multiple school sites.
- ❖ There were 6,014 tribal members as of December 2018; 1,925 of these are under the age of twenty (32%).
- ❖ There are approximately 1,700 Native American students within the 50 mile radius of the reservation K-12.
- ❖ There are five community districts, with each having a lodge to gather (Bannock Creek, Fort Hall, Ross Fork Creek, Lincoln Creek, and Gibson).



New Investment in STEM

- ❖ There are high drop out rates at the tribal high school and many students leave to college only to return home within a year.
- ❖ High poverty rates and low employability
- ❖ Many Native American are kinesthetic and tactile learners. They thrive when they are actively involved in their own learning process.
- ❖ STEM supports this type of learning style
- ❖ Bring more students back to the High School, get training on campus
- ❖ SBHS as a general community resource hub
- ❖ Take STEM to the different tribal districts
- ❖ Break down generational norms
- ❖ TIME FOR A CHANGE!





Key STEM Initiatives

In 2020, Tribal Youth Education revised and updated their strategic plan to include STEAM within the vision statement:

“The Tribal Education Program utilizes family/school/community involvement to create life-long learners using: education within homes, STEAM, and traditional cultures.”

Goal #1. Integrating traditional cultures in a contemporary world

- Developing curriculum that incorporates STEAM
- Improving information literacy through cultural applications of math, reading, and STEAM

2020-2021 Accomplishments

- ❖ Partnered with American Indian Services PREP in the summers
- ❖ Introduced STEM Career pathways with local business, colleges, and universities
- ❖ Worked with the state Career Technical Education staff on presentations to students
- ❖ Introduced Climate Change Education Courses to students in our community
- ❖ Held STEM Family Nights in four of our tribal communities on the reservation utilizing our mobile TMC Trailer.
- ❖ Created a Maker Space for students at our new Boys and Girls Club
- ❖ Welcomed a Think, Make, Create Lab onto the reservation with the help of the AIS PREP program



Upcoming STEM Initiatives

- ❖ “STEM Saturdays” will be taking place at the Boys and Girls Club every other Saturday from 10-2pm, Starting in Feb 2022
- ❖ Shoshone-Bannock Jr./Sr. High School is going through the process of STEM Designation
- ❖ STEM Maker Space being established at the Boys and Girls Club
- ❖ About 50% of our higher education scholarship students are obtaining degrees and certificates in STEM careers
- ❖ Continue with the STEM programming that is already happening from the past year





Supportive Groups

Idaho STEM Action Center and ISEE
Regional Hub Group

Idaho National Laboratories

American Indian Services

United Way in Southeast Idaho

Idaho State University

University of Idaho

College of Southern Idaho

State of Idaho Career and Technical
Education

Idaho-Out-Of-School Network

Natural History Museum

Upper Snake River Tribes

Tribal Department of Energy

Grand Teton National Park

Tribal Fish and Wildlife Department

Language & Cultural Preservation
Department

Idaho Department of Indian Education

Private donors

Community Buy In

- ❖ Community forums
- ❖ Advertisement of events and invitation to all family members
- ❖ Community sees the importance due to the lack of college graduates
- ❖ Students are starting to see themselves in the field and gaining the confidence to become involved
- ❖ Collaboration among programs/schools on the reservation

SHOSHONE-BANNOCK
TRIBAL YOUTH EDUCATION PROGRAM
presents

Family STEM NIGHT

All events are being held from 6pm-8pm

Hands-On project provided to all students

Dinner provided to participants

For questions or concerns call (208) 478-3851




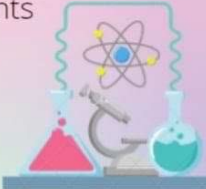
BANNOCK CREEK
September 13, 2021

ROSS FORK
September 20, 2021

EAGLE LODGE
September 27, 2021

SHOSHONE-BANNOCK HIGH SCHOOL
September 28, 2021

These events have an approved Tribal Safety Plan in accordance to the Tribes COVID 19 safety guidelines. Masks are mandated and must be worn. Thank you!



Shoshone-Bannock Tribes Tribal Youth Education Program & American Indian Services

Think.Make.Create. Mobile STEM Trailer BUILD DAY!

When: May 15th-16th, 2021
Time: 9:00am-4:00pm each day!

Where: 350 S 700 W, Blackfoot, ID 83221 (Old Lillian Vallely School)

Volunteers welcome!
Contact Sunshine Shepherd at (970) 442-1844 or sunshine@americanindianservices.org for any questions!



INL Idaho National Laboratory

IDAHO STEM

Think Make Create MOBILE MAKERSPACE

This activity follows the Shoshone-Bannock Tribes COVID-19 Policy and Safety Protocols. Participate at your own risk, not responsible for injuries or other unforeseen circumstances.

Overcoming Challenges



- ❖ Technology understanding
- ❖ Generational learning gaps
- ❖ Lack of training for staff/volunteers
- ❖ Community Awareness of STEM (“What is STEM?”)

STEM and Workforce Development

- ❖ Seeing more of a trend of our higher education students and short-term training students majoring or receiving a certificate in STEM Careers, which is great because we need a workforce in all areas.
- ❖ The tribes are still in need of skilled workers on our reservation and our TERO department is overseeing apprenticeships in the areas of:
 - ❖ Carpentry
 - ❖ HVAC
 - ❖ Electrical
 - ❖ Welding





Projected Economic Impacts of STEM & Workforce Initiatives

- ❖ In 2015, an economic impact study was completed and found that the tribes' economic activity adds more than 4,400 jobs and \$400 million annually to the eastern Idaho economy.
- ❖ "The study also found that the 110,000 acres of agricultural lands owned by the tribes and individual Indians on the reservation produces an estimated \$125 million annually in direct crop revenues and results in the creation of over 900 jobs included the multiplier effects."
- ❖ More research needs to go into identifying the economic impacts of STEM career pathways specifically

Cultural STE(A)M and Workforce

❖ We have many talented and skilled workers in the area of cultural STEM (STEAM) that include entrepreneurs in the areas of:

- Bead workers
- Leather craftsman
- Hide Tanners
- Cultural Dance and Singing Performers
- Multi-Media Artists (paint, draw, film, dance, music)

❖ Each of these skills are STEM

- Many students and community members don't even realize that they have always know what STEM is and practiced all principles of STEM leading all the way back to their ancestors
- Examples...






Long Term Vision for STEM

❖ In 2020, Tribal Youth Education revised and updated their strategic plan to include STEAM within the vision statement:

“The Tribal Education Program utilizes family/school/community involvement to create life-long learners using education within homes, STEAM, and traditional cultures.”

- ❖ Our hopes are to create a very STEM educated, hands-on, trained community that can thrive through STEM careers and STEM education.
 - ❖ To increase Tribal HS numbers which in turn will produce trained graduates that are able to obtain careers and give back to the reservation in some way!
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Recommendations for Success

- ❖ Community involvement and input
- ❖ Partner and Collaborate
- ❖ Be patient
- ❖ Make it relevant
- ❖ Be consistent
- ❖ Follow through
- ❖ Be respectful of Traditional Teachings
- ❖ Make STEM/STEAM Fun!



Thank you so much for your time!



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