Santa Fe Indian School

Community Based Education Model
A School - Community Partnership
1996 - Present
Brief History of the CBEM (Community Based Education Model) Program

SFIS Leadership Vision in the late 1990's
- Not a School of Indians But a School for Indians
- Vibrant School for Students, Parents and Community Elders

Involvement of Tribal Leadership in the Development of CBE
- Gathering of Local Pueblo Governors
- Discussion About CBEM Development - Math and Science
- How To Motivate and Develop Interest in Students
- Native Culture, Tradition and Language

Planning began in 1995, first class in 1996
- Original Partners – Intel, Gila River Indian Community, AISES
- Computer Technology – Intel
- Funding – DOE and Intel

Use Traditional Methods of Indian Education - Mental, Physical, Spiritual
- Hands on Activities
- Experiential Learning
- Participation in Cultural Events and Activities with Use of the Native Language
- Engagement of Community Members as Mentors - It Takes An Entire Community To Teach a Child

Wisdom of the Leadership
- How do you get communities to take ownership?
- How do you sustain the interest and participation?
General Themes for STEM Integration

- Watersheds, Water Quantity, Quality and Policy
- Environmental Geography - Geospatial Technologies
- Biodiversity, Ecosystems and Ecology
- Agroecology
- Local and Regional Climate Change Impacts
- Energy, Food, Water Security
- Economic Development
- Tribal Government
- Nuclear Science and LANL - Legacy Waste

Community Based Curriculum
Adaptive and Responsive to Community Needs
Integration of Culturally Relevant Topics, Issues, Projects
What can students learn about their natural resources and how to protect and preserve them for future generations?

What can they learn to empower them to act in the best interests of their communities?

Multiple Benefits
- Experiences Develop Interests ⇒ Further Education ⇒ Community Capacity
- Intergenerational Input & Carry Through
  - Children ⇔ Youth ⇔ Adults ⇔ Elders
- Community STEM Relationships
  - Valuable & Supplemental Contribution
  - Baseline ⇒ Longitudinal Studies
  - Planning & Management
- Aspirational & Anticipatory Problem Solving
Participating Tribal Communities

- Tesuque Pueblo
- Cochiti Pueblo
- Santa Clara Pueblo
- Jemez Pueblo
- San Ildefonso Pueblo
- Kewa
- Picuris Pueblo
- Nambe Pueblo
Integrated Community STEM - Santa Clara Creek restoration site.

Intergenerational - Longitudinal

- SFIS students
- Kha’p’o Community School students,
- Santa Clara Forestry personnel
Cochiti Canyon Reforestation Project
- Las Conchas Fire 2013
- Devastating flood
- 3000 donated Douglas Fir seedlings
- Restoration and Adaptation
Picuris Pueblo - Energy Self-Determination
- 1 MW Solar Power Plant
- Power Purchase Agreement with Kit Carson Electric Cooperative
GIS offers the opportunity to visualize relationships, offers a ‘place’ where experiences can be related, offers an easel to display what the brain does naturally...
2008 → Present Erosion Mapping
- longitudinal study
- multiple technologies
- complex mitigation/restoration planning
3D Landscape Prints - hand-size
- Facilitates intergenerational knowledge transfer
- Oral native language places and names
- Jurisdictional Lands & Waterways
- Ancestral Domain
Innovations in American Government Award Finalist

1999 - The Ford Foundation
Harvard University's Kennedy School of Government
The Council for Excellence in Government
SFIS received the Special Achievement in GIS Award during the ESRI 2006 Users Conference in San Diego. (SFIS was only high school awardee – one of 120 finalists out of ~160,000 sites worldwide!)