In many schools, lessons about Indigenous Peoples are presented only through social studies. This often defines Native Americans by their encounters with others, rather than by their own accomplishments. In truth, Indigenous Peoples in the Americas have been innovative and successful managers of their lands and resources for tens of thousands of years. Native innovation is anchored in a deep understanding of how tools and technologies are best suited to the environment. Cultivating these carefully attuned relationships with the land has been critical to Native existence for millennia. Indigenous Peoples of the Americas have always been accomplished scientists and innovators in ways that value balance and unity with the environment.

American Indian knowledge and related innovations, goods, and technologies (e.g., agriculture) have had enormous global impact. Medicine, engineering, astronomy, and math are as Indigenous to the Americas as the Native Peoples who practice them. More than fifty present-day medications have been developed by examining the use of plant extracts in traditional Native medicines. The Olmec Peoples of Mesoamerica created rubber. Indigenous Andeans developed complex and extensive road networks and suspension bridges that successfully distributed foods and resources across territories spanning six countries in modern South America. Today, Indigenous teachings, traditional and new, present solutions to modern-day issues in need of innovation. Industrial farming, for example, uses large amounts of fossil fuels and water supplies, and it produces 70 percent of river and stream pollution in the United States. Inka agricultural terraces offer another approach: they limit land usage and facilitate water distribution through canals powered simply by gravity.

Sharing Indigenous legacies of scientific advancement in your classrooms shows students that Native knowledge is scientific and often sustainable. Also, Native students are more likely to pursue careers in STEM when they see themselves and their communities represented in their classrooms. Ultimately, all students can benefit from learning about Native scientific innovations.

Try these culturally sensitive activities and resources:

- For grades 4–8, use NMAI’s [Living Maya Time website](https://americanindian.si.edu/living-maya-time) to learn about Maya culture and astronomy and do a related math activity.
- For grades 5–8, check out the NMAI teaching poster “Q’eswachaka: A Living Legacy of Inka Engineering” to learn about the physics and history of Inka bridge engineering. Available in English y español.
- For grades 5–8, explore the NMAI digital lessons “The Inka Empire: What Innovations Can Provide Food and Water for Millions?” and “The Great Inka Road: How Can a Road System Be an Example of Innovation?” available in English y español.
- For grades 6–9, the American Indian Responses to Environmental Challenges website from NMAI explains how different Native nations deal with environmental issues today.
- For elementary students, check out the book [Keepers of the Earth: Native American Stories and Environmental Activities for Children](https://americanindian.si.edu/keepers-of-the-earth) by Joseph Bruchac and Michael J. Caduto.

[Q’eswachaka, suspension grass bridge of Inka design, Peru, 2015. Photograph by staff photographer, NMAI](https://americanindian.si.edu/qeswachaka-suspension-grass-bridge-of-inka-design-peru-2015-photograph-by-staff-photographer-nmai)