



Teacher Materials

Feeding an Empire: How did the Inka apply innovation to agriculture?

Lesson Components

Andean Foods

Image	Description
	<p>Andean Foods Slideshow: View a slideshow that showcases the great variety of foods in the Andes.</p>

Challenges and Innovations

Challenge: Extending the Agricultural Area

Image	Description
	<p>Terracing Slideshow: View a slideshow of Inka terracing in various ancestral and contemporary contexts in the Andes.</p>
	<p>Interview with Local Expert: Read an interview with an agriculture and terracing expert in the Andes who continues to use food growing methods introduced by the Inka.</p>

Feeding an Empire

Challenge: Preservation and Storage

Image	Description
	<p>Colca Video: Learn about the Inka storehouses that fed and supported the Inka Empire.</p>
	<p>Explore a Colca Interactive: Use an interactive tool to investigate the features of this unique Inka food preservation and storage system.</p>

Challenge: Food Diversification

Image	Description
	<p>Microclimates Graphic: Examine this graphic to better understand the meaning of “microclimate environments.”</p>
	<p>Potato Planting Video: See a video of father and son in Toqra, Cusco Region, Peru, preparing the land to plant potatoes using an Inka plowing tool called <i>chaquitaqlla</i> that has been in continuous use in the Andes for more than 600 years.</p>

Feeding an Empire

Student Worksheets

- [*Agricultural Innovation*](#)

Connection to the Compelling Question

- What challenges might come with providing food for millions? What opportunities for innovation arise in response to such challenges? In this lesson, students discover how the Inka applied principles of sustainability and reciprocity to build innovative agricultural practices.

Ideas

- **Challenges and Innovation:** Extending the Agricultural Area, Preservation and Storage, Food Diversification
- Students can investigate the videos, interactives, images, and an interview independently or in small groups.

Suggested Lesson Procedure

Hook

- Show the Andean Foods Slide Show.
- Ask: What Inka foods do you and your family eat?
- Foods domesticated thousands of years ago are still staples for more than seven million Quechua and Aymara indigenous people living in the Andes today, as well as for millions around the world. What does this say about Inka innovation?
- Preview vocabulary as needed: colca, terracing, microclimate.

Challenges and Innovations

Students explore three categories of agricultural challenges and innovations: Extending the Agricultural Area, Preservation and Storage, and Food Diversification. For each challenge, students will see how the Inka applied innovation to engineer a solution.

The worksheet *Agricultural Innovation* is a tool for helping students synthesize the big ideas of Inka agricultural innovation. As students explore each featured source, take time to check for understanding of key content and concepts:

- Extending the Agricultural Area: Terracing allowed the Inka Empire to grow crops in areas that might otherwise be compromised by immense rainfall and subsequent erosion.

Feeding an Empire

- **Preservation and Storage:** Colca, an Inka system of food storage and preservation, sustained the empire. The engineering and location of the colcas help keep the contents dry and cool. The colca system helped to guarantee the survival of the empire and its people in years when harvests were poor.
- **Food Diversification:** The Inka practiced food diversification in response to challenges posed by microclimate environments. In turn, the variety of foods nourished communities and colcas allowed for surplus food to feed those communities whose crops had produced poorly.

Current-Day Applications

Consider a contemporary environmental challenge. What lessons about innovation could we learn from the Inka to help us engineer a solution to the problem? Students can record their ideas on page two of the worksheet, *Agricultural Innovation*.

Wrap Up

Share ideas. What Inka innovations did students think could be applied to modern-day challenges?

Next: Students apply what they learned about water management and agricultural innovations in the Inka Empire to answer the compelling question, "What innovations can provide food and water for millions?"

