



Teacher Materials

The Importance of Water Management: How did the Inka apply innovation to water management?

Lesson Components

The Power of Water: Urubamba River

Image	Description
	<p>Urubamba River Video: Witness the sheer power of this river in the Andes. Consider how we depend on water and the extent to which we can control its force.</p>

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Explore Inka Water Management

Image	Description
	<p>360-degree Panoramic: Explore the Inka ancestral site of Pisac showing erosion and terracing.</p>
	<p>Preventing Erosion Video: See how the Inka prevented erosion by controlling the destructive force of water.</p>
	<p>Engineer an Inka Terrace: Put your engineering skills to the test. Place materials in the correct order to create a stable terrace.</p>
	<p>Tipón Video and Water Management Interactive: Discover how water was distributed to irrigate agricultural terraces and supply water to the local population.</p>

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Contemporary Connections: Inka Water Management Today

Image	Description
	<p>Drinking from an Inka Fountain Video: See how water is still available for drinking in Machu Picchu.</p>
	<p>Interviews with Local Experts: Read interviews with local experts from the Sacred Valley in the Cusco Region of Peru who still use water management methods introduced by the Inka.</p>

Student Worksheet

- [**Inka Water Management**](#)

Connection to the Compelling Question

- In this lesson, students will construct their own understanding of water management by investigating several innovative engineering techniques used by the Inka Empire.

Ideas

- Exploring Inka Water Management: Students can investigate the videos and interactives independently or in small groups.

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Contemporary Connections

- As an extension, ask students to refer to the sources “Tipón Video,” “Water Management Interactive,” and “Interviews with Local Experts” and accompanying images to find evidence that demonstrates how Inka innovation is reflected in water management methods today.

Suggested Lesson Procedure

Hook

- Ask: Do you ever think about where our water comes from (water fountains, tap water, etc.)? Discuss students’ responses. Beyond drinking, what other ways do we depend on water? Discuss ideas.
- Is there such a thing as having too much water? Discuss examples (floods).
- What happens when there isn’t enough water? Discuss examples (droughts).
- Finding solutions to challenges like floods and drought that require innovation: Students will investigate how the Inka used innovation to design a complex water management system.
- As needed, preview vocabulary: erosion, terrace, irrigation.
- Show the Urubamba River video. What do students notice about the force of the water in this video? Why might this be important in designing a water management system?

Exploring Inka Water Management

A key feature of water management is controlling the power of water. The Inka designed a comprehensive system that included preventing erosion and distributing water for irrigation and drinking. Students use the featured sources to investigate how the Inka engineered a water management system for a vast empire.

Working independently or in small groups, students consider three key concepts: erosion, terracing, and irrigation. Students use the worksheet *Inka Water Management* to guide their exploration of the featured sources.

Students might explore the sources in the following order:

1. Preventing Erosion video: See how terracing can be a tool for controlling the force of water.
2. Engineer an Inka Terrace interactive tool: Practice building a terrace to better understand how Inka drain design helped to slow the speed of water.

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3. Tipón Video and Water Management Interactive: Explore how water is redirected to irrigate agricultural terraces and supply the contemporary town of Tipón with drinking water.

Forming Conclusions: Inka Water Management

Students use evidence from the sources they examined and construct a response to the question, “How is water management an example of innovation?”

Wrap up

Discuss student responses. Ask them what evidence they found to support their conclusions. Extension: How are ancient water management systems being used today? Students view the Machu Picchu video and read interviews with local experts.

Next: Students examine Inka innovation through a complex system of agriculture attuned to diverse geographical environments and microclimates.
