

Teacher Materials

The Meaning of Innovation

Lesson Components

- **Opening Video “Inka Innovative Engineers—The Great Inka Road:”** A video animation featuring innovative practices used by the Inka for engineering roads and bridges to support their empire, presented from the perspective of two middle school students.

Student Worksheet

- [*The Meaning of Innovation*](#)

Connection to the Compelling Question

- What is innovation and why is it important? This lesson previews key concepts integral to the compelling question, “How can a road system be an example of innovation?” Students begin their inquiry by watching a video that sets the stage for thinking about Inka innovation and accomplishments in engineering in the context of building roads and bridges.

Ideas

- The worksheet, *The Meaning of Innovation*, can be done by students individually, in pairs, or in small groups. The activity is designed to explore the meaning of the word “innovation” through definitions, characteristics, examples, and non-examples.



The Meaning of Innovation

Suggested Lesson Procedure

Hook

- Ask students what the word “innovation” means. Discuss students’ definitions, examples, and ideas.
- Consider prompts such as:
 - What innovations have been introduced in their lifetimes?
 - How have these innovations changed the world?
 - How might life be different without them?
- Show the video “Inka Innovative Engineers—The Great Inka Road” to the whole class.

The Meaning of Innovation

- Using *The Meaning of Innovation* worksheet, students can create their own definitions for the word “innovation.” For example, innovation can be defined as “a new idea, tool, or method to solve a problem,” or simply, “a new way to solve a problem.”
- Students may offer examples of contemporary innovations, such as smartphones, Fed Ex, bullet trains, self-driving cars, drones, etc. For non-examples, students might list old innovations such as rotary or pay phones, the telegraph, the railroad, and the freeway system. This discussion can trigger ideas about innovation, and whether old technologies that were innovative at one point are the “non-examples” of today.
- Guide students in whole-class or small-group discussion using the following questions: What innovative solutions are used today to transport people and goods throughout the U.S. and in the rest of the world? Which solutions are environmentally sound? Which solutions are harming the environment? How does innovation look different depending on the context of place and time?

Next: *Students turn their attention to the Inka Empire and explore its geographic features, ways of living, and history.*
