Lesson 6 Innovating: Past, Present and Future

Main Ideas

- Innovators seem to share some key qualities and approaches to their work.
- We all have qualities that can help us be an innovator.

Key Concepts

- Curiosity
- Breaking the rules
- Collaboration
- Recognizing and solving problems that address real needs
- Having fun
- Embracing risk and the lessons of failure

Materials

- Computers with access to the Internet, for student use
- Sign: How do people solve problems?
- Student Activity Sheet 6A: Analyzing Our Artifacts
- Student Activity Sheet 6B:Innovating: Past, Present and Future Essay

Duration

1 class period (45 minutes each)

Instructional Sequence

1. Engagement

Revisit the pre-unit survey activity. Review the innovations people responded they could not live without. Briefly discuss with students:

- Do you know who created these innovations?
- Whether or not you know the innovator of the innovations, what qualities would an individual or group creating these innovations need to possess?

2. Today's Innovators

To learn more about the innovators of today, explore Onlnnovation.com and watch some of the videos together as a class or allow students to do so individually or with partners.

Discuss with students some of the qualities that have made these innovators successful. Write these ideas on the board. Try to guide students toward the lesson's key concepts: curiosity, breaking the rules, collaboration, recognizing and solving problems that address real needs, having fun, and embracing the risk and the lessons of failure.

continued...

Lesson 6 Continued

2. Analyzing Ourselves with Artifacts

Connect this lesson back to the unit's overarching question of "How do people create society-changing innovations?" Make it relevant to the students' own lives by inviting students to analyze their own artifacts and reflect on their own qualities.

Tell them that just as artifacts associated with Henry Ford reveal something about his personality, we too carry things that may say something about us. Ask students to choose a physical object they currently have with them such as something they're wearing or something in their desk or backpack, etc. Ask students to do a think, pair, share about this "artifact." They should think about why they have this object with them. What purpose does it serve? Why is it important to them to have it around?

Have students dig a little deeper and with a partner use Student Activity Sheet 6A: Analyzing Our Artifacts. Ask students to think about their own positive qualities and approaches to school, work or life that are exemplified by the artifact.

Example

Artifact eraser

Use to fix mistakes on my assignments
What this says about me: I am willing to admit and fix my mistakes.

(Not "I make a lot of mistakes.")

Assessment

Assign Student Activity Sheet 6B: Innovating: Past, Present and Future – Essay.

Help students access the recommended websites for research. Students can use the graphic organizer to keep track of their research.

Name			

analyzing our artifacts

These are the types of questions historians ask when studying an artifact.

They will also help you piece together what this artifact tells about you.

Think and write notes about the answers to these questions

1. What is the object called?	5. Is this object part of family life, education, work, play, home, religion, etc.?
2. What is the object made of?	6. How did you obtain it?
3. What is it used for?	
	7. What is it like to use this object?
4. Which people use it?	

8. What qualities or approaches to work or	How do you think this quality or approach
life might a person using this object have?	could help you solve problems?
List a few ideas.	
O What does using this abject on about you?	
9. What does using this object say about you? What quality or approach do you have?	
mat quality of approach ac you have.	



innovating past, present and future

Think and write about innovating.

Who has helped make our society what it is today? What were their society-changing innovations? And what are some of their qualities and approaches to work that have made these innovators successful? How are you like or different from these innovators? The activity Analyzing Our Artifacts has already helped you think about your own qualities and approaches to work. Access information from http://oninnovation.com, http://www.ted.com, and http://invention.smithsonian.org. Use this graphic organizer to start collecting more information for your essay. Start with innovators Henry Ford and Steve Wozniak, then choose two more that interest you most.

In your essay, discuss the four innovators, their innovations (including why you think their work was an innovation), their qualities and approaches to work, and how those qualities and approaches were similar or different. Finally, explain some of the ways your qualities and approaches are like or different from theirs.

From the Curators:

"Even though we are able to identify common traits and find congruent behaviors among these innovators, we also can see the range of approaches and processes used by them. But one trait that is common to all these innovators is that being 'interdisciplinary' was second nature to them."

Marc Greuther,
 Chief curator and curator of industry and design,
 The Henry Ford

innovator	innovation & why innovative	innovator's qualities/approaches
Henry Ford		
Steve Wozniak		