Lesson 1 Henry Ford and the Beginnings of the Auto Industry

Big Ideas

- An innovation is an invention, an idea or an improvement or change that is used by many people.
- Henry Ford had a vision to produce a car for the masses.

Key Concepts

- Model T
- Life at the turn of the 20th century
- Vision
- Innovation
- Collaborate

Digitized Artifacts From the Collections of **The Henry Ford**

Lesson 1
Henry Ford and the Beginnings of the Auto Industry

- "Wabash Avenue, North from Adams Street, Chicago," 1900 ID# THF429
- Hay Wagon Coming Up from a Meadow, Flushing, New York, circa 1900 ID# THF38312
- Detroit Automobile Company Delivery Truck Outside the Factory, 1899-1900 ID# THF25005
- Duryea Motor Wagon with Barnum & Bailey Circus, 1896 ID# THF3979
- First Official Ford Motor Company Portrait of Henry Ford, 1904 ID# THF36449
- Ford Model T Touring Car, 1914, Given to John Burroughs by Henry Ford ID# THF70573
- Toyota Prius Automobile, 2002 ID# THF68248
- Westinghouse Portable Steam Engine No. 345, Made circa 1881 and Used by Henry Ford ID# THF74884
- Ford Quadricycle, 1896, First Car Built by Henry Ford ID# THF3854
- Bagley Avenue Workshop, Replica of Henry Ford's Workshop, in *Greenfield Village* ID# THF1840

Materials

- Computers with access to the Internet, digital projector and screen (preferred) OR printed handouts of digitized artifacts' images and descriptions
- Sign: How do people solve problems?
- Student Activity Sheet 1: My Innovation

Duration One class period (45 minutes)

Instructional Sequence:

1 Engagement

Discuss what Henry Ford is known for and his impact on our lifestyles and culture today. To spark conversation, compare and contrast the images of the Ford Model T Touring Car, 1914, Given to John Burroughs by Henry Ford ID# THF70573 and the Toyota Prius Automobile, 2002 ID# THF68248.

2 The Problem

Henry Ford will serve as an example of a problem solver as you and your students explore the unit's overarching question, "How do people solve problems?"

Continued...

2 The Problem Continued

To introduce Henry Ford's problem of how to build an automobile for the masses and his solutions to this problem, discuss the following concepts and show the accompanying images.

Concept	Image
City life at the turn of the 20th century was bustling. People got around by walking or using horses, streetcars and trains.	"Wabash Avenue, North from Adams Street, Chicago," 1900 ID# THF429
Farm life at the turn of the 20th century required hard labor and lots of land for growing crops and raising animals. It was not always easy for farm families to travel long distances to visit town or relatives.	Hay Wagon Coming Up from a Meadow, Flushing, New York, circa 1900 ID# THF38312
Automobiles at the turn of the 20th century were experimental and only very wealthy people owned them.	Duryea Motor Wagon with Barnum & Bailey Circus, 1896 ID#THF3979 Detroit Automobile Company Delivery Truck Outside the Factory, 1899-1900 ID# THF25005
Henry Ford built automobiles because he had experience with engines and enjoyed tinkering.	Westinghouse Portable Steam Engine No. 345, Made circa 1881 and Used by Henry Ford ID# THF74884 Bagley Avenue Workshop, Replica of Henry Ford's Workshop, in *Greenfield Village* ID# THF1840 Ford Quadricycle, 1896, First Car Built by Henry Ford ID# THF3854
Henry Ford's vision was to build an affordable car for the masses. It would especially help farm families to become less isolated.	First Official Ford Motor Company Portrait of Henry Ford, 1904 ID# THF36449

Continued…

3 Students' Innovations

As a group, define the word "innovation".

Ask students what they would like to invent or innovate and how might they do so? Distribute the Student Activity Sheet 1: My Innovation to help them think about and answer this question. Before students complete the Activity Sheet, share the following information about Henry Ford to help them understand and respond to the questions.

1 Henry Ford had interests and skills that helped him to solve problems:

– He liked doing things and working with his hands.

– He was curious about building things, especially engines.

– He enjoyed taking apart and repairing watches as a child.

2 Henry Ford saw problems that he wanted to solve:

– He grew up on a farm and knew how isolated farm families were from towns or relatives.

– He knew how complex machines were by having to help his neighbor operate Westinghouse Portable Steam Engine No. 345, Made circa 1881 and Used by Henry Ford ID# THF74884 when no other neighbors knew how to make it work.

3 Henry Ford wanted to break some of the rules about the type of cars available before his Model T:

– Cars were expensive, and only the very wealthy could afford them.

– Cars were also very heavy, making them even more expensive.

– Cars were complicated to drive and maintain.

4 Henry Ford chose collaborators who had knowledge and skills that helped him solve problems:

– Henry's friend Ed "Spider" Huff was a great engineer and helped design the Model T.

– Henry chose James Couzens, who had excellent business skills, to be his second-in-command.

5 Henry Ford persevered and took risks in order to solve problems and achieve his vision:

– Henry Ford founded two companies that went out of business before he was finally successful with his third company, the Ford Motor Company.

– To attract attention and get supporters for Ford Motor Company, Henry Ford built and drove race cars, risking his life.

After students have completed the Activity Sheet, invite them to share their innovations and their vision for achieving them.

Assessment

Assess students' participation in the discussions, their thoughtfulness in completing Activity Sheet #1: My Innovation and their skill in communicating their innovations and vision

my Innovation

Name _____

These questions and activities will help you develop your ideas about a problem you'd like to solve and an invention or **innovation** you'd like to create!

Part I: Brainstorming

1. What are you curious about or interested in? List at least three things.

2. What problems do you, your family or people around you have to deal with every day? List all you can think of here.

Part II: Thinking Like an Innovator

Look back at questions 1 and 2. Choose two problems you'd like to solve or innovative products you'd like to create. Use them to fill in the following tables.

3. What do you know about these problems or products? These "facts" are rules that innovators may need to courage to break!

Problem/product	Rules of the past

4. Name one person you think could **collaborate** or work together with you on each problem/product. Why do you think this person would be a good collaborator?

Problem/product	Collaborator	Why

5. If you made it your mission to work on one of these problems/products, what risks might you have to take?

Problem/product	Risks

Part III: Vision

Now, chose one of the two problems or products. Think about your idea or vision for improving this problem or product. Remember:

An innovation does not have to be a brand-new invention. Innovation is about improving.

An innovation does not have to be a physical object. It can be an idea, a process, or a way of doing things that is better.

It could be better for many different reasons. It might work better, be simpler, use new technology or be environmentally friendly.

It must be adopted by society at large, so it has to be something people would want.

Once you have your idea or vision, describe who and what you need to make it happen through writing, drawing or another form of communication. Be creative! Share your idea or vision with your classmates, family and friends. What do they think?