

Lesson 2 Case Study of an Innovator: Henry Ford

Main Ideas

- A successful innovator has qualities that contribute to his/her success.
- Henry Ford used his love of tinkering, his persistence, his willingness to take risks, and his ability to build good teams to create the Model T.

Key Concepts

- Curious
- Took advantage of opportunities to learn
- Mechanically inclined
- Perseverance after failure
- Willing to take risks
- Able to identify and attract outstanding people
- Visionary

Digitized Artifacts from the Collections of The Henry Ford

Lesson 2 Case Study of an Innovator: Henry Ford

- [Westinghouse Portable Steam Engine No. 345, Made circa 1881 and Used by Henry Ford](#) ID# THF74884
- [Henry Ford with Other Employees at Edison Illuminating Company Plant, circa 1895](#) ID# THF22975
- [Ford Quadricycle, 1896, First Car Built by Henry Ford](#) ID# THF3854
- [Detroit Automobile Company Delivery Truck Outside the Factory, 1899-1900](#) ID# THF25005
- [Henry Ford and Ed \(Spider\) Huff Driving the Ford Sweepstakes Racer at Grosse Pointe, Michigan, October 10, 1901](#) ID# THF23800
- [Ford Race Car “Sweepstakes,” 1901](#) ID# THF70565
- [Henry Ford and Ford Motor Company Executives at Henry Ford Museum, 1933](#) ID# THF22279
- [Ford Model T Touring Car, 1914, Given to John Burroughs by Henry Ford](#) ID# THF70573
- [Henry Ford with the First Ford V-8 Engine, March 26, 1932](#) ID# THF22218

Materials

- Computers with access to the Internet (preferred) OR printed handouts of digitized artifacts’ images and descriptions
- Sign: “How do people create society-changing innovations?”
- Student Activity Sheet 2A: Analyzing Artifacts of Henry Ford
- Student Activity Sheet 2B: Henry Ford: Biography of an Innovator
- Answer Key 2B: Henry Ford: Biography of an Innovator

Duration

One class period (45 minutes)

Instructional Sequence

1 Engagement

Remind students that the Model T was an innovation. Ask them to explain why.

Tell students that Henry Ford possessed personal qualities that contributed to his ability to be innovative, and that today they will learn more about his life story, his personal qualities and the artifacts associated with his life that reveal some of those qualities.

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Lesson 2 Case Study of an Innovator: Henry Ford Continued

2 Henry Ford's Qualities

Divide students into pairs or groups of three. Assign each group of students one digitized artifact. Students can view their artifacts through [Lesson 2: Case Study of an Innovator: Henry Ford](#). If you do not have Internet access, print the images and the accompanying descriptive information.

First, ask the students to complete the Quick Write on Student Activity Sheet 2A by only looking at the artifact – without reading its title, date or description. This will help them to observe and describe details about material culture. Then have students conduct a thorough analysis of the artifact using the Student Activity Sheet 2A: Analyzing Artifacts of Henry Ford. Ask them to prepare a brief presentation (about 1 minute) for the class about the artifact and its relation to Henry Ford's life.

3 Henry Ford: Biography of an Innovator

Read Student Activity Sheet 2B: Henry Ford: Biography of an Innovator as a class or independently. Check students' understanding of each other's presentations by having them identify and match how each digitized artifact tells a specific part of the story of Henry Ford's life.

Assessment

Assess students' understanding of how artifacts tell about a person, based on their presentations and Student Activity Sheet 2B. Henry Ford: Biography of an Innovator.



Analysis

Now conduct a more thorough analysis of the artifact. Use your prior knowledge, observation skills and imagination to answer the following questions the best you can, with as much descriptive detail as possible:

What do you think this artifact is?

Why do you think it was made?

When do you think it was made?

What else do you notice about this artifact?

What do you think it is made from?



Analysis Continued...

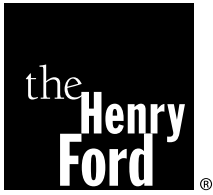
Now, read the descriptive information about the artifact.

Describe the artifact.

What does this artifact tell us about Henry Ford's personality or qualities?

What does this artifact tell us about Henry Ford's life?

How do you think these particular qualities helped Henry Ford create a society-changing innovation like the Model T?



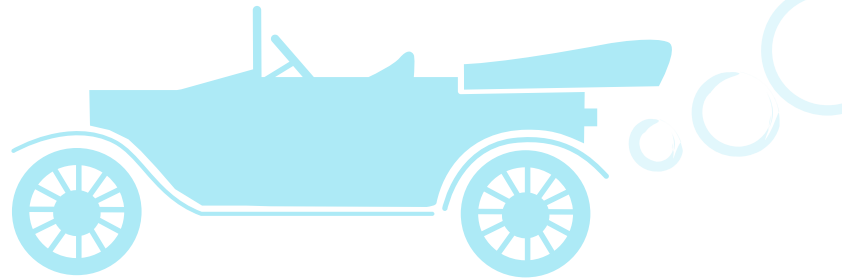
Henry Ford Biography of an Innovator

For each blank, choose the primary source from Henry Ford's life which best illustrates this part of his story.

Digitized primary sources from Henry Ford's life:

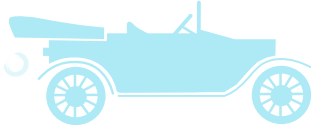
- A. Ford Model T Touring Car, 1914, Given to John Burroughs by Henry Ford ID# THF70573
- B. Ford Race Car "Sweepstakes," 1901 ID# THF70565
- C. Detroit Automobile Company Delivery Truck Outside the Factory, 1899-1900 ID# THF25005
- D. Ford Quadricycle, 1896, First Car Built by Henry Ford ID# THF3854
- E. Henry Ford with Other Employees at Edison Illuminating Company Plant, circa 1895 ID# THF22975
- F. Westinghouse Portable Steam Engine No. 345, Made circa 1881 and Used by Henry Ford ID# THF74884
- G. Henry Ford with the First Ford V-8 Engine, March 26, 1932 ID# THF22218
- H. Henry Ford and Ford Motor Company Executives at *Henry Ford Museum*, 1933 ID# THF22279
- I. Henry Ford and Ed (Spider) Huff Driving the Ford Sweepstakes Racer at Grosse Pointe, Michigan, October 10, 1901 ID# THF23800

Name _____





Henry Ford Biography of an Innovator



Name _____

By Bob Casey, Catherine Tuczec, Donna Braden
Curators, The Henry Ford

Henry Ford did not invent the automobile. He didn't even invent the assembly line. But his inexpensive Model T car and his improvements to production methods made him one of the major shapers of the 20th century. Why was he such an innovator?

Ford's beginnings were perfectly ordinary. He was born on his father's farm in what is now Dearborn, Michigan, on July 30, 1863. At a young age, Ford demonstrated some of the characteristics that would make him successful, powerful and famous. Using his mechanical ability, he organized other boys to build simple waterwheels and steam engines. His curiosity led him to learn about full-sized steam engines by becoming friends with the men who ran them.

1. _____ He taught himself to fix watches and, in doing so, learned about machine design and about learning by trial and error. These characteristics would become the foundation of his whole career.

Ford could have followed in his father's footsteps and become a farmer. But young Henry was fascinated by machines and was willing to take risks to pursue that fascination. In 1879, he left the farm to become an apprentice at the Michigan Car Company, a manufacturer of railroad cars in Detroit. Over the next two-and-one-half years, he held several similar jobs, sometimes moving when he thought he could learn more somewhere else. He returned home in

1882 but did little farming. Instead he operated and repaired portable steam engines used by farmers, occasionally worked in factories in Detroit, and cut and sold timber from 40 acres of his father's land. By now, Ford was demonstrating another characteristic – a preference for working on his own rather than for somebody else. In 1888, Ford married Clara Bryant, and in 1891, they moved to Detroit where Henry had taken a job as night engineer for the Edison Illuminating Company.

2. _____ Ford did not know a great deal about electricity. He saw the job in part as an opportunity to learn. Also, Henry admired Thomas Edison, the great inventor, and was able to meet his role model through this job.

Henry was a good pupil and by 1896 had risen to chief engineer of the Illuminating Company. But he had other interests. He became one of the many curious and mechanically inclined people working in barns and small shops across the country trying to build horseless carriages. Ford completed his first automobile in 1896, **3.** _____ aided by a team of friends. A second car followed in 1898. Ford now demonstrated one of the key qualities to his future success – the ability to dream big and convince other people to sign on and help him achieve that dream. He persuaded a group of businessmen to back him in the biggest risk of

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his life – a company to make and sell horseless carriages.

4. _____ But Ford knew nothing about running a business, and learning by trial and error always involves failure. The new company failed, as did a second. To revive his fortunes, Ford took bigger risks, building and even driving racing cars. 5. _____ The success of these cars attracted additional financial backers, and on June 16, 1903, Henry incorporated his third automotive venture, Ford Motor Company.

The early history of Ford Motor Company illustrates one of Henry Ford's most important talents – an ability to identify and attract outstanding people. He hired a core of young, able men who believed in his vision and would make Ford Motor Company into one of the world's great industrial enterprises.

6. _____ The new company's first car, called the Model A, was followed by a variety of improved models. In 1907, Ford's four-cylinder, \$600 Model N became the best-selling car in the country. But by this time, Ford had a bigger vision: a better, cheaper "motorcar for the great multitude." Working with a hand-picked group of employees, he came up with the Model T, introduced on October 1, 1908.

7. _____ Henry Ford was right; the Model T was truly a car for the multitude. Over 15 million were produced.

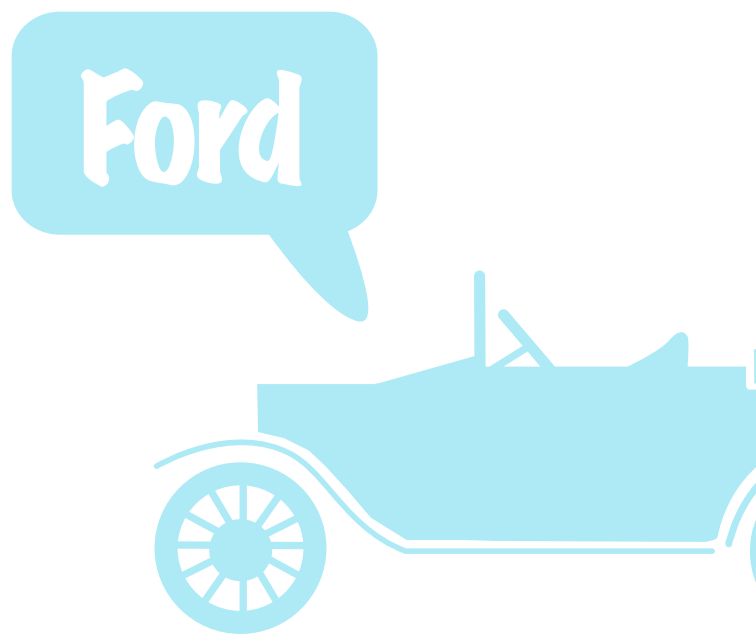
The Model T's success had convinced Henry that only he knew what car people wanted. He continued to believe that the Model T was that car. He ignored the growing popularity of more expensive but more stylish and comfortable cars like the Chevrolet and would not listen to his son Edsel and other Ford executives when they said it was time for a new model. Finally, the declining sales figures convinced Henry to design a new car, called the Model A. It was successful, but for only

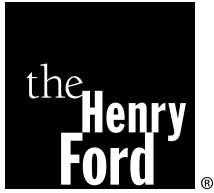
four years. In 1932, at age 69, Ford again showed his mechanical ability when he introduced his last great automotive innovation, the lightweight, inexpensive V-8 engine.

8. _____ Even this was not enough to halt his company's decline. By 1936, Ford Motor Company had fallen to third place in the U.S. market, behind both General Motors and Chrysler Corporation.

Henry continued to tinker, sometimes with his mentor and friend Thomas Edison. He also worked with George Washington Carver to try to find new uses for the soybean. Henry retired from Ford Motor Company in 1945 and died on April 7, 1947, at age 83.

Note The main sources for the above were *Ford: The Times, The Man, The Company*; *Ford: Expansion and Challenge 1915-1933*; and *Ford: Decline and Rebirth 1933-1962* by Allan Nevins and Frank Ernest Hill, and *From the American System to Mass Production* by David Hounshell.





Henry Ford

Biography of an Innovator

By Bob Casey, Catherine Tucek, Donna Braden
Curators, The Henry Ford

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