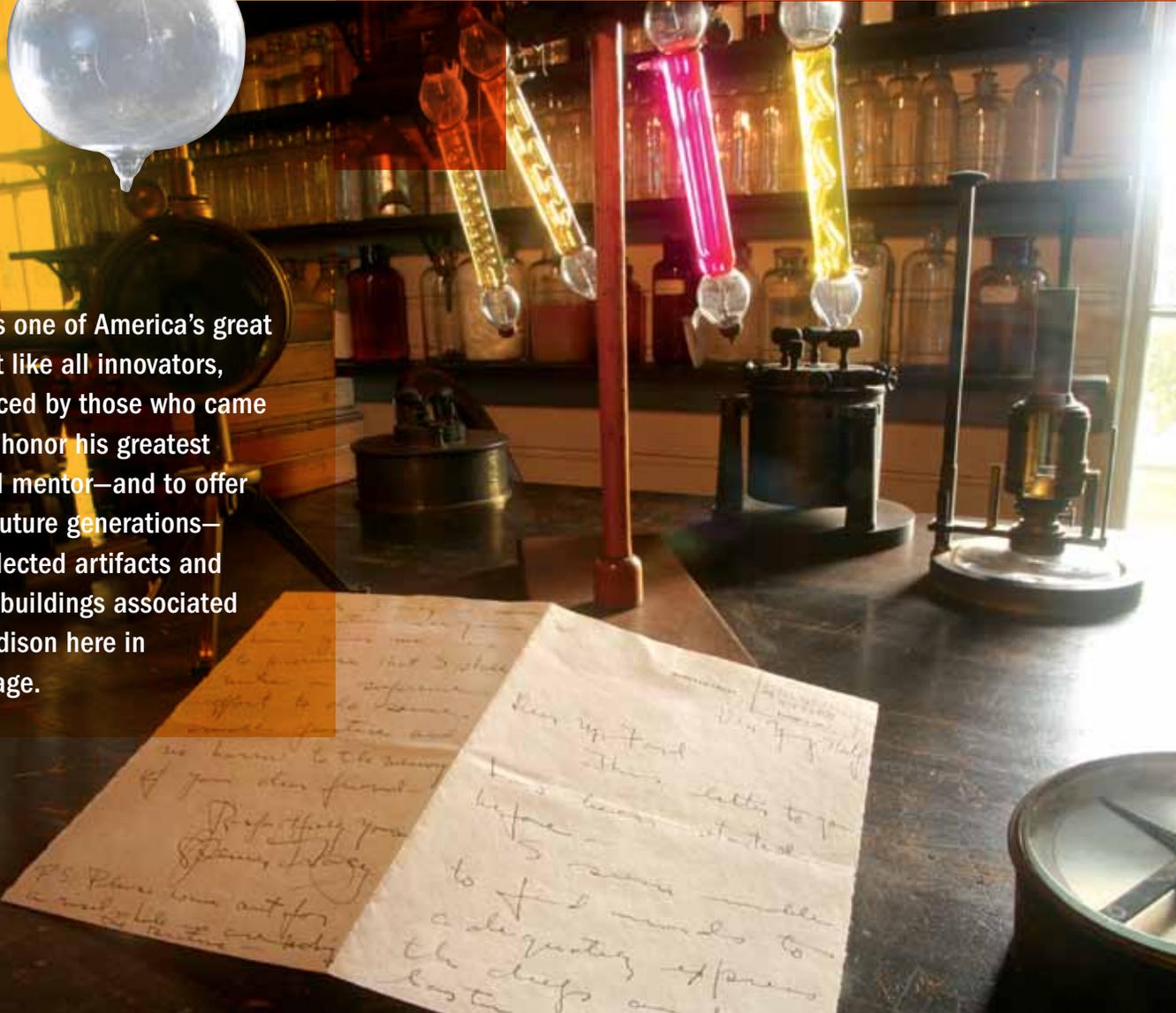


Self-Guided
Itinerary

Through the Lens of Innovation Greenfield Village®



Henry Ford was one of America's great innovators. But like all innovators, he was influenced by those who came before him. To honor his greatest role model and mentor—and to offer inspiration to future generations—Henry Ford collected artifacts and re-created the buildings associated with Thomas Edison here in Greenfield Village.



“THE VALUE OF AN IDEA LIES IN THE USING OF IT.”
– THOMAS ALVA EDISON

THOMAS EDISON, MOST FAMOUS FOR HIS WORK WITH ELECTRIC LIGHTING, HAD ONE OF THE WORLD’S MOST BRILLIANT MINDS; HE WAS AN INNOVATOR, INVENTOR AND ENTREPRENEUR, ALL ROLLED INTO ONE. USE THIS ITINERARY TO HELP YOU DISCOVER MORE ABOUT THE VARIOUS ASPECTS OF INNOVATION AS EXEMPLIFIED BY THOMAS EDISON AND HIS WORK.

HINT: Many of the questions throughout this guide relate to the Menlo Park Laboratory. Save yourself some walking; be sure to read through all the questions before you start so you don’t have to return later to answer them.

INVENTION VS. INNOVATION

Invention is the creation of something new, something that has never existed before. Inventions are not always successful: Creating something new does not necessarily mean that anybody will use it. The process of **innovation** involves improvement, adaptation and adoption. Widespread acceptance of an innovation is what gives it the ability to change the world.

REFLECT AND DISCUSS

Visit **Edison’s Menlo Park Complex 70** and his **Fort Myers Laboratory 72** to discover some of his inventions and innovations.

- On the first floor, just inside the west door of the Menlo Park Laboratory, you will find Edison’s telephone work room. What innovative change did Edison implement on Alexander Graham Bell’s invention?
- Edison’s night watchman harvested a substance for his light bulb experiments that Edison used to create this major innovation in the telephone industry. What was it?
- See some of Edison’s modifications to telegraph technology of the 1860s and 1870s, displayed upstairs in Edison’s Menlo Park Laboratory. Were these improvements innovations or were they actually new inventions?

- Why were some of his inventions not adopted? What needs were met by his successful innovations?
- What major undertaking was Edison involved in at his Fort Myers Laboratory? Did any innovations come out of his research there? Why or why not?

DID YOU KNOW?
Thomas Edison held 1,093 patents over the course of his life.

EXPLORE MORE
If possible, stay and see the dramatic presentation of “Edison’s Light Fantastic”
Was Henry Ford’s use of the moving assembly line to assemble cars an invention or an innovation? Visit the historic **Ford Motor Company 32** here at Greenfield Village to find out.



ACCEPTING INNOVATION

Due to a lack of acceptance, either by potential users or by financial backers, some inventions do not become true innovations. Customers have to be convinced that the benefits of adopting the innovation will outweigh the costs of implementing any new technology. Financial backers must be convinced customers will accept an innovation before they will put their money on the line.

REFLECT AND DISCUSS

While at **Edison’s Menlo Park Complex 70**, learn how Edison convinced people to change their lifestyles in order to incorporate his innovations and how that led new investors to invest in his ideas.

- Examine the promotional poster describing the wonders of the phonograph. How did posters like this one spark people’s interest in Edison’s inventions?
- How did Edison’s media image help attract people to his New Year’s lamp lighting?
- Edison’s first patent was for the vote-counting machine that is displayed upstairs in the Menlo Park Laboratory. Why did this invention fail? What did Edison do to help ensure he would be successful in turning future inventions into innovations?

DID YOU KNOW?
Edison spent much of the 1890s attempting to turn low-grade iron ore into high-grade briquettes usable in the steel mills. He financed the endeavor himself with profits from other innovations and lost a lot of his personal wealth when the venture failed.

EXPLORE MORE
How did George Washington Carver, another innovator, convince people to learn about, trust and follow his research and advice? Visit the **George Washington Carver Cabin 96** to find the answer.



PLEASE USE THE INCLUDED GREENFIELD VILLAGE MAP TO FIND LOCATIONS IN THIS ITINERARY.



TEAMWORK LEADS TO INNOVATION

Innovation is not a solitary pursuit. As you explore **Edison's Menlo Park Complex 70**, pay attention to the vital collaborative roles played by the men who worked for Edison. Learn how part of his genius was his ability to choose the right people for the job.

REFLECT AND DISCUSS

Visit Thomas Edison's Menlo Park Office and Library, Glass Shed, Woodworking Shop and Machine Shop to learn about a few of the employees that helped Edison keep his business running smoothly.

- Who worked in the outbuildings of this complex? What were their jobs?
- Why do you think Edison chose to make many of the things he needed on-site instead of simply purchasing his supplies commercially?

EXPLORE MORE

Visit **Charles Steinmetz Cabin 99** in Greenfield Village. Learn about his Camp Mohawk retreat. If he built Camp Mohawk as a retreat, why did other brilliant minds so often congregate there to seek his advice? What developments came from these informal gatherings?

DID YOU KNOW?

While Edison once said, "Genius is one percent inspiration and 99 percent perspiration," most of the perspiration in his lab came from his "muckers." Although the men received only modest pay and worked very long hours, they considered it a privilege to work with "The Wizard of Menlo Park." Many famous inventors of the day got their start working for Edison at his "invention factory."

THE IMPACT OF INNOVATIVE TECHNOLOGY ON AMERICAN LIFE

People have always measured progress through technological advancement. In the late 19th century, Americans made huge leaps in their use of technology. The popularization of mass production brought consumer products into more homes, allowing them to have a pronounced impact on Americans' daily life.

REFLECT AND DISCUSS

Think about Edison's innovations and their impact on people's lives in the 1880s.

- How do you think the addition of electric lights affected the residents of the **Sarah Jordan Boarding House 71**?
- Visit the **Edison Illuminating Company 38** to see what further innovations Edison made in his lighting system. How did these innovations help make technology more accessible to people living far from the city?

EXPLORE MORE

Here at Greenfield Village, there are many more examples of how innovations can change the way we live. How has technology changed through time to affect the way we communicate? To see the way communication technology has changed, first visit **Eagle Tavern 42** as it was in 1849. Next, travel forward through time to 1858 at **Smiths Creek Depot 39**, and then move on to the 1880s at the **J.R. Jones General Store 41**. How has communication technology changed over time? How does Jones' telephone compare to modern telephones?

Think about all the ways Edison's inventions still affect our lives today.

- What major differences did you notice between lighting systems of the 1880s and the ways we use lights today?
- What technology created by Edison can be found at the **Sounds of America Gallery 100**? How do innovations on this invention continue to impact social life in the United States? How do you imagine it will continue to change?

DID YOU KNOW?

At first, Edison backed direct current (DC), but he relented when it was shown that alternating current (AC) worked better for transmission of electricity over long distances. The power coming into your house is AC, but many of our electrical devices run on DC.





STANDING ON THE SHOULDERS OF GIANTS

While Edison's light bulb design and electrical system dominated the market for almost 130 years, many people are now making changes in the way they view electrical use. An increasing number of private homes and most businesses now use fluorescent lighting to cut down on electrical consumption.

REFLECT AND DISCUSS

Notice how the lights in **Edison's Menlo Park Complex 70** are different from the ones you use in your house.

- What other changes have been made to Edison's original system of electrical delivery?

Why were these changes needed?

EXPLORE MORE

Through the years, many technologies have been thought of as obsolete due to new innovations in their field. Some of these technologies are now seeing a resurgence because they are ecologically responsible choices. Visit the **Ford Home 29**, the **Farris Windmill 82**, the **Soybean Laboratory Agricultural Gallery 7** and the **Loranger Gristmill 14** to see how old ideas can become new again through technological innovations.

DID YOU KNOW?

Until the invention of the electric starter by Charles Kettering in 1911, electric cars, which were quieter, cleaner and easier to start, competed for market share along with their petroleum-fueled brothers, especially in the luxury car market.

“IF I HAVE SEEN FURTHER, IT IS ONLY BY STANDING ON THE SHOULDERS OF GIANTS.”

— SIR ISAAC NEWTON



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