

Master Armorer Activity Book

National Park Service
U.S. Department of the Interior
Springfield Armory National Historic Site



Welcome!



Welcome to Springfield Armory National Historic Site!

You are in a special place. Springfield Armory is one of the over 400 sites of the National Park Service that helps protect some of our most historic and natural treasures in the United States.

President George Washington founded Springfield Armory in 1794 to ensure soldiers were equipped with effective weapons to protect the young nation. Thousands of men and women worked at the Springfield Armory between 1794 and 1968 providing firearms for American soldiers from the War of 1812 through the Vietnam War.

The need for new and improved machines and production sparked a wave of innovation in Springfield and throughout the Connecticut River Valley. New ways of shaping wood and metal developed at Springfield Armory revolutionized manufacturing and spread worldwide to many other products such as sewing machines, bicycles, and cars.

As you explore Springfield Armory National Historic Site, imagine yourself in this place at some point over the last 225 years. What role would you play: Commanding Officer, Inventor, Factory Worker, Soldier, Park Ranger?

Thank you for becoming a Master Armorer!



Kelly Fellner

Kelly Fellner

Superintendent

Instructions

Are you up for the challenge of becoming a Master Armorer of Springfield Armory?

Springfield Armory was established in 1794 under the direction of George Washington and operated for 174 years until its close in 1968. During this time thousands of firearms were made and the Master Armorer ensured they were of the highest quality.

As the highest ranked craftsman, the job of Master Armorer required patience, skill and knowledge of firearms and their production, and an understanding of the operations at the Armory. The Master Armorer inspected the completed firearms and a cartouche bearing their initials was imprinted on the rifle, signifying their approval.

"A Master Armorer should not only be a good mechanic but intelligent, inflexible, possessed of independence of mind, of reputable character and dignified department of strict integrity scrupulously faithful to the trust imposed on him...."

Letter from Lieutenant Colonel Roswell Lee, 1815



Erskine Allin was appointed Master Armorer of Springfield Armory in 1853. He made various contributions to the development of firearms including the trapdoor mechanism, which allowed the Armory to modify existing muzzle-loading rifles into breechloading rifles.

Explore the Museum and the grounds to complete all activities and become a Master Armorer of Springfield Armory! Once you have completed all the activities, find a park ranger and ask them to review your book before taking the pledge and receiving your badge and certificate.

Pioneer Valley

Pioneer Valley is located in Western Massachusetts along the Connecticut River. The Upper Pioneer Valley saw the growth of agriculture around tobacco and specialty crops, and the Lower Pioneer Valley, near Springfield, saw the development of industry.

In deciding where to place a national armory, a few different sites were considered. A letter written by Brigadier General Henry Knox, explained why Springfield, Massachusetts should be chosen as the site for the first national armory.

"April 6, 1777

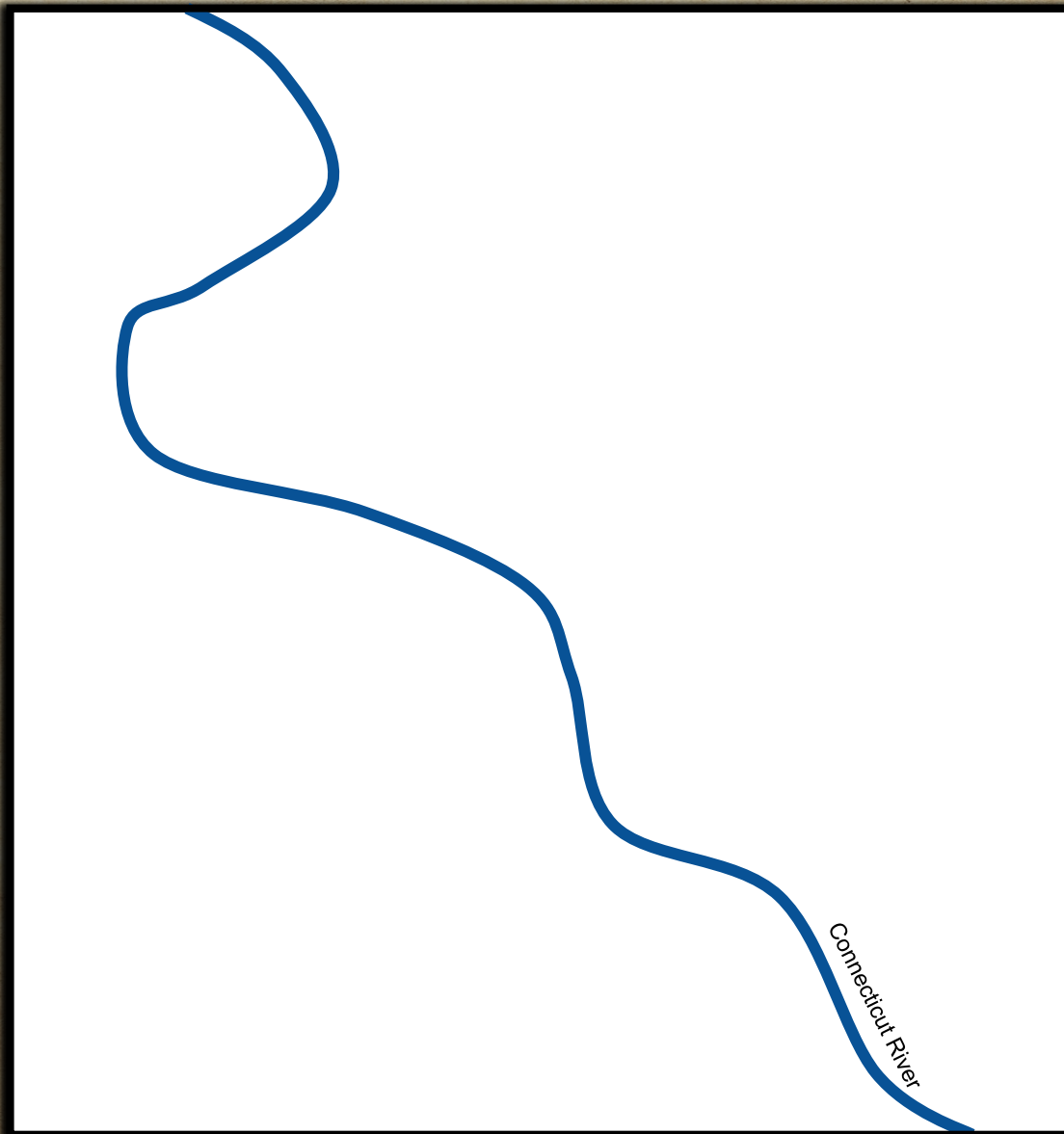
...Springfield has the advantage of Brookfield in the number of streams which empty themselves in the Connecticut River and on which there are a number of saw mills. Timber is much more easily gotten at Springfield than Brookfield because of river transportation and therefore is less expensive. There are shops houses and stores already available in Springfield as well as workmen at work in the various branches.

Provisions and food is much more cheaply provided at Springfield than Brookfield as the country is more plentiful.

...the plain just above Springfield is perhaps one of the most proper spots in America on every account."

Brigadier General James Knox

After reading the excerpt from the letter written to Massachusetts Governor James Bowdoin, create a map that includes important geographic and cultural features that were key in determining the site for an armory. Don't forget to place your armory on the map!

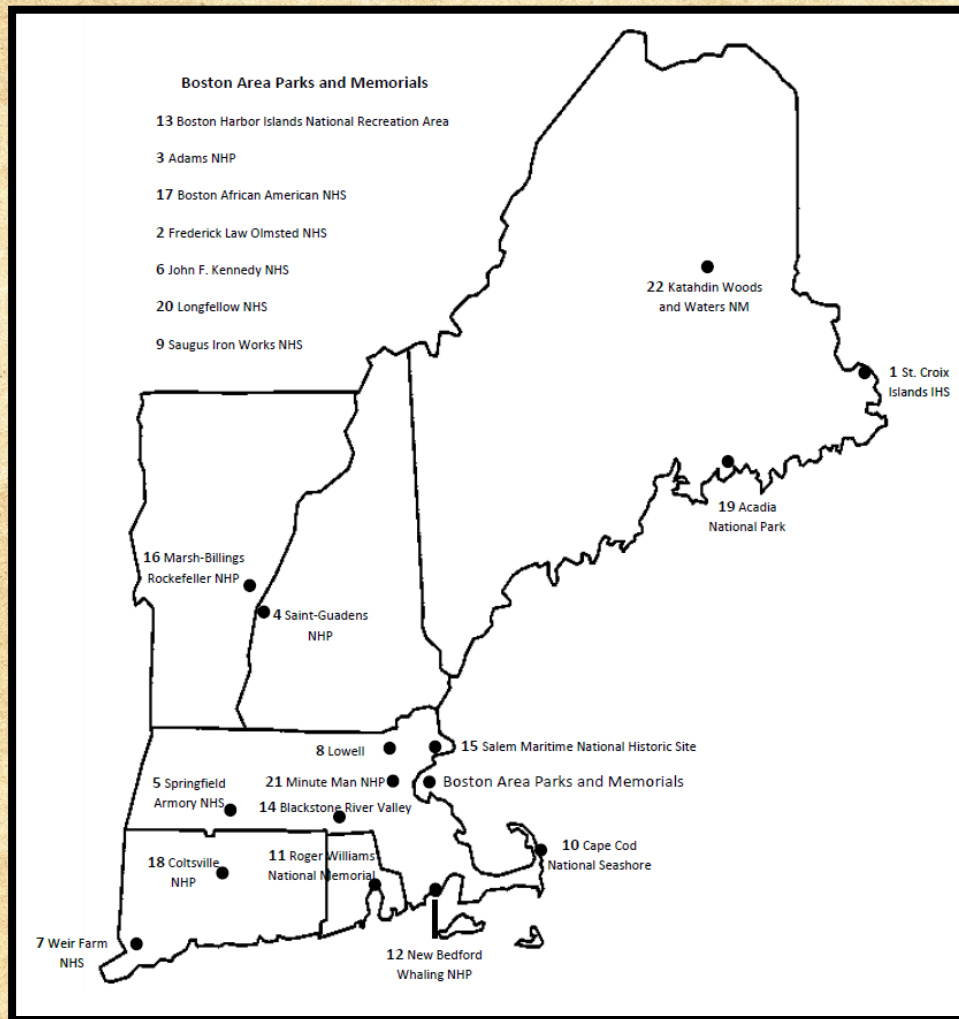


NPS Sites in New England

Aside from having knowledge of the immediate area, a Master Armorer needs to have an understanding of the surrounding region.

The National Park Service protects over 400 areas of special significance within the United States, being 15 historical sites, parks, and recreation areas in Massachusetts alone!

See if you can match select parks to their correct description. Write the corresponding number from the map next to the blank by the description.



_____ As the Birthplace of the American Industrial Revolution, along a river, America made the transition from farm to factory.

_____ An industrial community established by Samuel Colt who developed the revolver.

_____ Commemorating the life of the founder of Rhode Island who fought for religious freedom. This new colony, founded in 1683, provided a refuge where anyone could practice their faith.

_____ Famed American Impressionist Painter lived here among the woods, fields, and streams. Stop by and bring out your inner artist.

_____ Here you will find the story of the history of land conservation. Three generations of conservationists lived here and changed how land was managed in America.

_____ In 1604 Pierre Dugua, a French Explorer, attempted to colonize North America. The site was, and still is, home to the Passamaquoddy.

_____ Miles of pristine beaches, marshes, and ponds support a diverse ecosystem. The stories of generations of people and history can be found here.

_____ One of America's great sculptors lived here until their death. Walk the grounds and view the bronze sculptures.

_____ Take a walk along a Civil War era fort, visit a lighthouse, hike trails, go fishing, and explore tidepools.

_____ The "City that Lit the World" was a town of immigrants, textiles, the Underground Railroad, and a whaling industry.

_____ The first Federal Arsenal established in 1794 under George Washington. It provided firearms for the U.S. armed forces for almost two centuries.

_____ The opening battle of the American Revolution was fought here on April 19th, 1775.

_____ This park protects the highest rocky headlands along the Atlantic Coast, with over 3.5 million visitors a year!

_____ Where the nation shifted into the Industrial Revolution using water-powered textile mills.



Visitor Center Scavenger Hunt

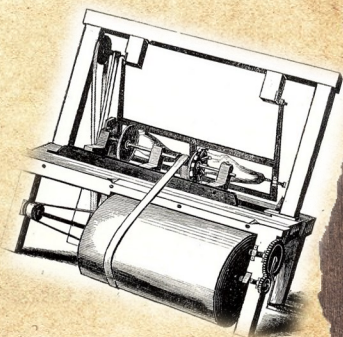
A Master Armorer needs to have knowledge about the firearms produced, the production process, and history of the Armory. As you explore the museum, read the various displays to find the answers to the questions.

Weapons

- Explain one improvement of breach loading mechanism over muzzle loader.
- Which firearm, created at the Armory, is the most influential in your opinion and why?

Industry

- In 1825 how many separate operations did it take to manufacture a musket? How did this change with the aid of water power?
- What do you think is one advantage of using machines as opposed to crafting by hand?
- Explain the role of Thomas Blanchard at Springfield Armory.
- What problem did the Blanchard Lathe fix? How did it change the production process?



- What type of wood was used in the penetration test and why?

- Why do you think production improved over time?



- Identify what gave the M16 an edge over the M14 when it came to production.

Are you looking to challenge yourself as a Master Armorer?

Answer these questions!

- Explain the significance of interchangeable parts. How might your life be different if this didn't exist?
- Which advancement, that occurred at the Armory, is the most significant in your opinion and why?
- How did Springfield Armory impact Massachusetts and the United States?

John Garand: The Man Behind the M1

As a Master Armorer, you need to know the history of specific firearms and the people who made them. Use the display cases on the WEAPONS side of the museum, to find the answers to the questions about John Garand.

How many M1's were produced at the Amory? What does this production number tell us about the M1 and the man who designed it?

How does the M14 compare to the M1?

How did the production of the M1, a semi-automatic rifle, change modern warfare?



How did later versions of the M1 compare to the first prototypes?

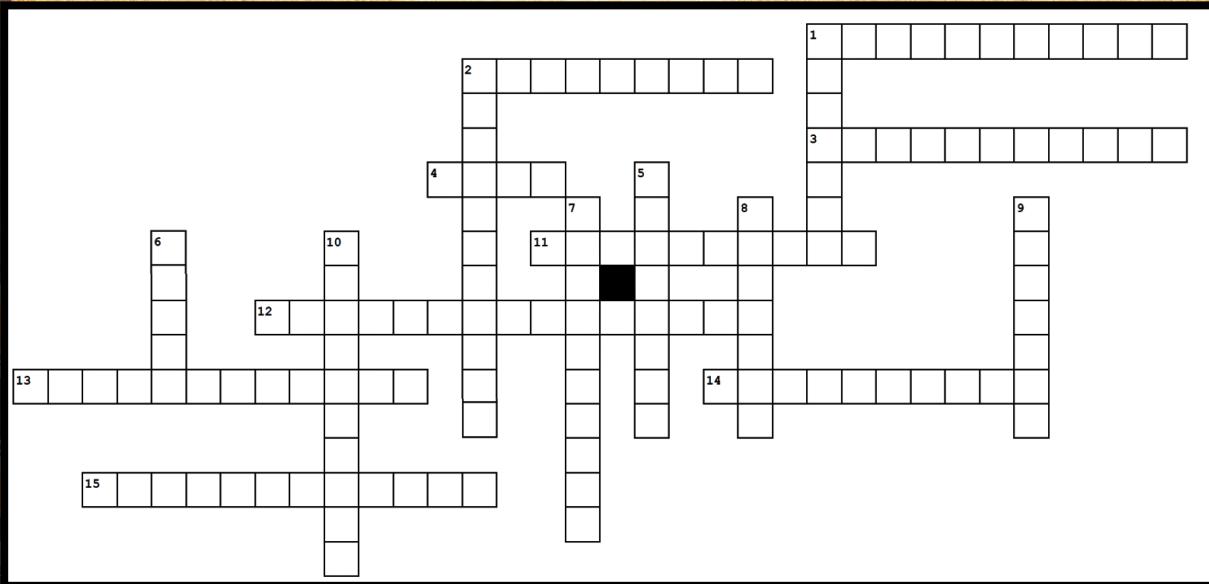


If you were to make an improvement on the M1, what would it be and why?



The 2,000,000th M1 Rifle produced, being held by Nohbert Bonnevillie as Col. George Woody observes in January 1944.

Springfield Armory Crossword



Across

1. Major Ripley faced scrutiny when he built _____, as it was considered to be a waste of government funds.
2. The first Superintendent of Springfield Armory.
3. Most gunstocks were made of _____ (a type of tree)
4. The Water Shops are located on the _____ River.
11. _____ designed the M1 Rifle.
12. Springfield Armory played a major role in the development of _____ parts.
13. _____ is Springfield Armory's Sister Arsenal
14. The Armory was established under General _____ in 1794.
15. A firearm that is loaded from the rear is a _____

Down

1. Springfield Armory tested weapons at _____ Reservoir.
2. In January 1787, Regulators attempted to capture Springfield Armory. They were lead by _____.
5. WOW's wore _____ for fashion and safety.
6. Thomas Blanchard designed the _____ which allowed for the replication of irregular objects.
7. _____ wrote the poem *The Arsenal at Springfield*.
8. An _____ stores firearms, while an armory stores and produces them.
9. _____ a gun is when spiral grooves are carved into the barrel.
10. Located about one mile from the Hill Shops, the _____ forged and made the firearm parts.

The Black Walnut Trees

Did you know that the wood of the black walnut tree was used for the stock on a majority of the muskets and rifles manufactured at the Springfield Armory? What other uses can you think of for the wood and hulls of the Black Walnut tree?

There are multiple Black Walnut trees on the property at Springfield Armory NHS. Ask a Park Ranger for their location and draw the leaf and hull of this unique tree.



Gunstock blanks stored in Building 19

The yellow stars will help you navigate the historic grounds of Springfield Armory NHS and Springfield Technical Community College to complete your BINGO

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Armory Bingo

A Master Armorer needs to be familiar with the grounds of Springfield Armory. As you walk the grounds, read the wayside signs to learn about the buildings and their role at the Armory.

Take a pictures and try to get a Bingo. Visit a Park Ranger to confirm your bingo!

Share your favorite photo on social media using the #SpringfieldArmoryNHS



Experience Your America!

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