



Activity 1: Iron Forge

The Iron Man archaeology group began surveying the newly cleared grounds of the Nathaneal Greene Homestead in April of 2015. They were interested in finding any historic items on the grounds, but their main purpose was to look for evidence of the old iron forge. The Greene family, among the earliest settlers in Rhode Island, had made their fortune by smelting iron. The grounds of the homestead had been bought for Major General Nathaneal Greene by his father for the purposes of opening their family's second iron forge.

To learn more about how iron is smelted and shaped, follow these links:

<http://www.madehow.com/Volume-2/Iron.html>

<https://www.youtube.com/watch?v=W6uFAv9L734>

Evidence of the location of the blacksmith shop near the site of the forge was discovered on June 4th, 2015, by the banks of the river behind the estate. Proximity to the water was important, because the river would have provided power for the mill.

To discover how colonial era water-powered mills work, follow this link to Old Sturbridge Village:

<https://www.osv.org/the-power-of-water>

If you would like to see a colonial-era iron forge that is still in operation, check out Saugus Iron Works:

<http://www.nps.gov/sair/index.htm>

Possible discussion questions for your class:

- 1) What types of things would the colonials in Nathaneal Greene's era have made out of iron?
- 2) What is iron ore, and how is it made into pig iron?
- 3) What are the differences in iron production in the 1700's and the modern era?
- 4) How can water be used to power industry?

Activity 2: Greene Family Tree

When surveying the grounds, the group quickly discovered the family burial plot. There are 17 identified internments in this cemetery, and 21 overall. Most of the internments here are connected to Major General Nathaneal Greene's older brother, Jacob Greene, who owned the property after 1776. You can find out who is buried in these grounds by following this link to the Greene Homestead website.

<http://www.nathanaelgreenehomestead.org/#history>

By clicking on the "History" tab, you can read more about the Historic Cemetery. You can also make it a fun and challenging investigation by giving your students this questionnaire to complete.

- 1) Jacob Greene is interred in the burial ground at Greene Homestead, along with his wife. What was his wife's name?
- 2) Jacob Greene had 7 children. How many of them are buried in the plot at Greene Homestead? What were their names?
- 3) There are four members of the Arnold family buried in this plot. How were they related to Jacob Greene?
- 4) Who were the oldest and youngest internments in this burial ground?
- 5) Patience (Cox) Smith outlived three husbands, including Jacob Varnum Greene. How many people interred at the Homestead are directly related to her, either through marriage or birth?
- 6) There are four unknown internments in this ground, which were not a part of the Greene family. How did they come to be buried there?

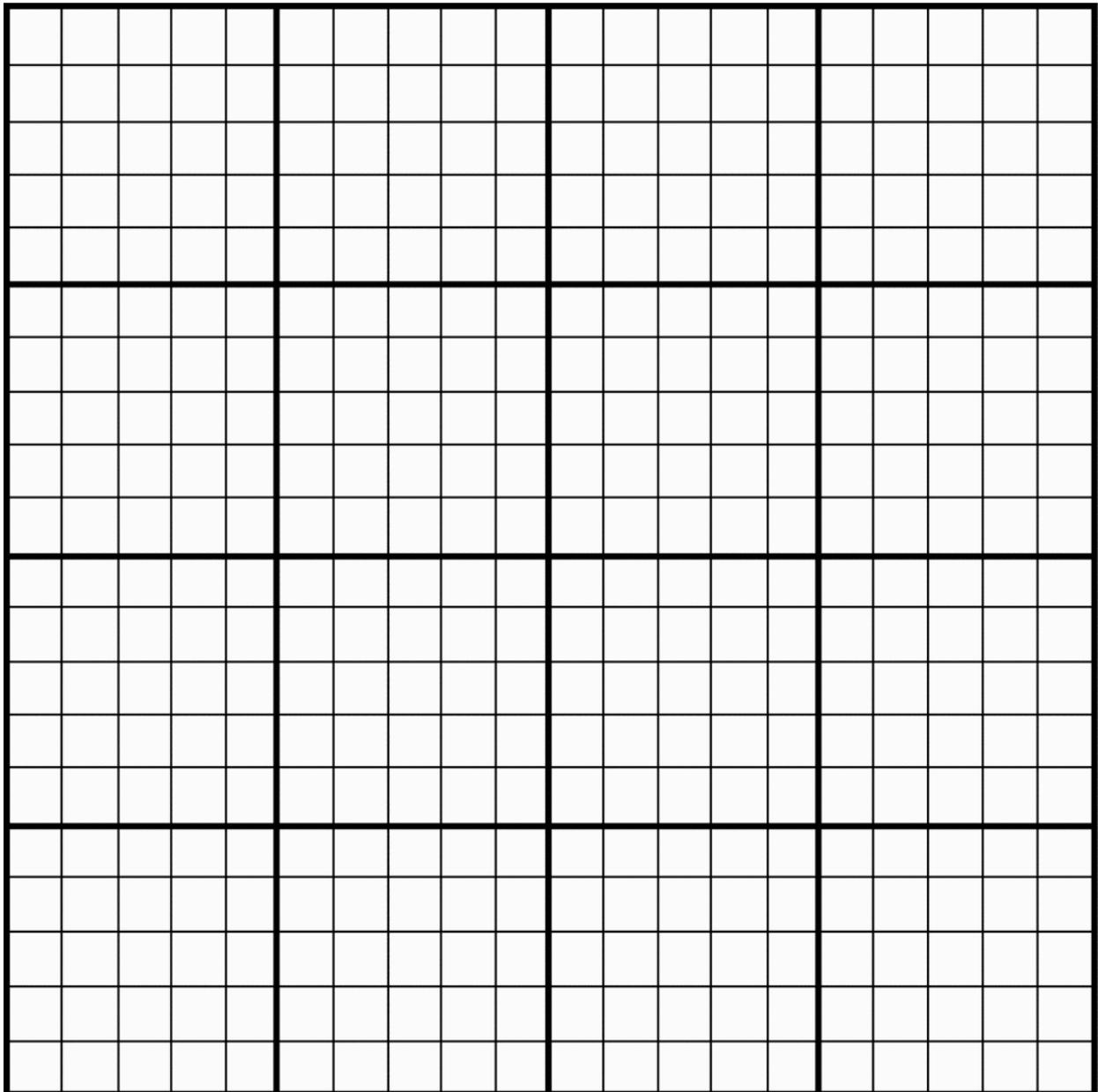
If you are interested in our state's historic cemeteries, find out more by following this link:

<http://www.rihistoriccemeteries.org/>

Activity 3: Mapping Scatters

Many archaeological artifacts have to be dug out of the ground. Many more are found above the surface. The Iron Man group was lucky enough to find many interesting historic artifacts without having to dig. They came across several “scatters” on the grounds. This is the archaeological term for artifacts clustered in specific areas.

You can use a grid to teach your student about mapping scatters. Find a suitable spot on your school grounds where students can work. To start with, use a 1 to 1 scale (1” equals 1’). Begin by identifying the outer borders of your grid on the actual ground. It helps to mark the corners with a flag or other object.



You can use any objects at all to lay out your scatter – be it things you bring in, or just objects that are already in the classroom. After you have placed them in random spots, have your students try to mark them on their paper grids as accurately as possible.

To make it more challenging, make the surface bigger by altering the scale. (1"=5', or 1"=10')

	A	B	C	D	E
1					
2					
3					
4					
5					

Activity 4: What's In Our Trash?

Most of the objects found by the Iron Man group were thrown away by the people who originally used them. By seeing the objects that a group of people discard, we can get a good idea of what they are using frequently in their everyday lives. What might future generations think about us if they saw what you were throwing away? Have your students use this table to track all of the items that you throw away for the next day or week (however long you want to study). They can trade logs with other students in the class. In small groups, they can pretend to be future archaeologists studying our era. What conclusions could they draw about the following:

- 1) How we eat?
- 2) What we wear?
- 3) What we do for fun?
- 4) What is important to us?

Date:	Time:	Object discarded:

Activity 5: 3D Photogrammetry

During this project, the Iron Man group took some stunning images of the homestead grounds using 3D Photogrammetry. This is a way of taking a 3D image, almost as if you are in the center of the photograph. More information about 3D Photogrammetry can be found here;

<http://www.photogrammetry.com/>

The students created these images with the app 123D capture. This is a free app available for Apple, Android and Windows users. You can find it here;

<http://www.123dapp.com/catch>

Why not have your students create a 3D picture of the scatter you created in Activity 3?