

E is for Excellency Interpretive Program

Name: Tracy Hall

Program Title: E is for Excellency in Gunnery (Mortar Battery)

Theme: Sandy Hook played an important role in the coastal defense of New York Harbor and the city of New York from the colonial era until the 1970's.

Audience: Young visitors ages 9-13

Grade level appropriate 4-8

Goal: To inform visitors of the role the Mortar Battery played in the Coastal Defense of New York Harbor and the city of New York.

Objectives:

1. The visitors will be able to identify and describe the role that Sandy Hook and more specifically the Mortar Battery played in the coastal defense of New York Harbor and the city of New York.
2. The visitors will work in teams to devise and implement a plan that simulates the teamwork required in a military operation.

Resources/Materials photographs, diagrams, flashlights, replicas of artillery shells and powder charges.

Outline

Introduction:

1. Welcome everyone to today's Jr. Ranger Program about the coastal defenses at Sandy Hook. Explain that in today's program you will learn the role that the Mortar Battery played in the defense of New York Harbor and the city of New York. This will be accomplished by simulating an activity that requires teamwork and planning similar to the actions of a gun crew of the Mortar Battery of sandy hook.
2. Remind visitors of many things available here at Sandy Hook

- a. Restrooms are available in the Visitors Center
- b. Lifeguards are on duty from 10:00-6:00 pm
- c. There is a Carry In and Carry Out program policy
- d. Be aware of ticks, mosquitos and poison ivy.
- e. Use designated trails
- f. Use caution near all string lines
- g. There are many other program offered at Sandy Hook

Body:

1. Begin by having the large groups on the grassy area outside the Mortar Battery complete a team building activity (such as have the group line up by height without speaking).
2. Once the group has completed the activity discuss with the group ask questions such as: Was this task difficult? Why or why not?
3. Inform group that military operations often required teamwork to accomplish difficult and dangerous tasks.
4. Walk group to the gunnery area of the Mortar Battery and give a brief talk on history and function of the battery.
5. Specifically focus on explaining in detail how each gun crew worked in concert in a small confined area to aim and fire the guns. The gun crew had to work with precision and accuracy under stressful and dangerous conditions. Each soldier had a job to perform that was crucial to the operation. Also point out the plotting room and its purpose which was how the gun crews knew exactly where to aim and fire their guns.
6. Divide the group into gun crews 4 groups of 4-5 members. If time permits have each gun crew complete another teambuilding activity(see attachment)
7. Give each gun crew a diagram of the Mortar Battery and a diagram of the bomb proof gallery with brief instructions and flashlights. Each group will need to use their diagrams to find their crew's

artillery shell and powder charge in the Battery. They must collect both items without dropping them remembering these are dangerous materials and find their way out of the Battery and around to their proper gun position at the bomb proof gallery.

8. Lanterns should be placed throughout the Battery as well as several rangers stationed for safety purposes.
9. After each team has completed the simulation, reassemble the gun crews and discuss what worked well for your team? What didn't work so well and why? Who was helpful and how?
10. Each gun crew that accomplished the task will receive the E patch that represents E=excellence in gunnery.

Conclusion: Today's program simulated some of the teamwork skills needed by gun crews to accomplish the dangerous and necessary task involved in coastal defense. Sandy Hook's coastal defenses hold an important and significant place in the military history of the United States.

Presentation of E patches for Excellence in Gunnery

The Power of Place

Just to stand in the gun pit at the Mortar Battery at Sandy hook transports you back in time to an era when America was just beginning to exert its military presence on the international stage. Sandy Hook has a long and important historical place in the military history of the United States. The construction of the first prototype concrete Mortar Battery for the American Harbor defense in 1890 was just the beginning. Explore the batteries of Sandy Hook and experience our country's military history. See how America proudly flexed its military muscle for the entire world right here at Sandy Hook.

Essential Questions

What role did Sandy Hook play in coastal defense?

What were some of the jobs the soldiers of Sandy Hook had to do?

How big was a gun crew?

How big was each mortar and what did it weight?

What was it like for the soldiers to fire those big guns?

Why was it important that the Mortar Battery was concealed?

How were the soldiers able to know in what direction to fire the guns?

Why do you think the army allowed the newspapers to write stories about Sandy Hook's defenses so openly?

How do you think the soldiers felt being in such confined quarters while handling such dangerous materials?

How would you feel about working inside those dark-maze-like tunnels around high explosives?

Why did the army stop using the Mortar Battery?

New Jersey Core Curriculum Standards Tie-ins

Social Studies

United States History America in the World 6.1

All students will acquire the knowledge and skills to think analytically about past and present interactions of people, cultures and the environment that have shaped American heritage.

Strand #7

6.1.12. B.7.a the students will explain how global competition by various nations for resources and land led to increased militarism

6.1.12. B.7.a the students will determine how technological advancements affected the nature of war on land on water and in the air.

Math

5-8 G.1 Geometry the students will solve problems involving scale drawings of geometric figures.

Team Building Activities:

Tarp Activity- Each team should have between 4-5 or people. Place a tarp or large piece of cloth down for each team. Explain that the object of this activity is for each team to flip their tarp. The catch here is that each team must stand on the tarp while they attempt to do this no team member is allowed off the tarp during the process. The first team to flip their tarp wins!

Swamp Island- Each team must get all of their members across a swamp infested with alligators and poisonous snakes. The only tool they have is their one raft (hula hoop). Any team member that steps or falls outside of their raft is dead. The first team to safely transport their team across wins. *(Use cones or designate a specific area to be the swamp)*

PRE-VISIT Activity

Have student read over the Mortar Battery Fact Sheet and view the attached photographs of similar batteries and then discuss the following questions.

1. Why do you think it took so many men to fire each mortar?
2. In what ways could it dangerous to be on a gun crew?
3. Why would they want the battery to look like sand dunes?
4. Why would the United States need a concrete battery at Sandy Hook?
5. The United States allowed the newspapers of the day to write stories about the Mortar Battery why do you think they did not want to keep it a secret from the rest of the world?

MORTAR BATTERY FACT SHEET

New York Harbor is America's most important port.

Sandy Hook became an important site in America's coastal defense against enemy ships

Sandy Hook was important in protecting New York Harbor because all ocean going ships had to pass by Sandy Hook to enter the harbor.

"Mortar Battery#1 Sandy Hook" was the first concrete mortar battery built for America's harbor defense.

Construction of the battery began in December 1890, and was completed in November, 1894.

Mortar Battery # 1 mounted sixteen 12-inch calibers, rear-loading, rifled mortars in four concrete firing pits.

The four pits were arranged in a rectangular pattern.

The mortar pits were connected by a long concrete tunnel that included storage rooms where thousands of tons of projectiles and large bags of gun powder for firing the mortars.

All of this was covered by thousands of tons of sand so that the entire battery resembled the natural sand dunes of Sandy Hook.

The big 3 foot to 4 foot long ½ ton artillery shells used in the mortars were transported by being suspended from an overhead monorail system on the ceiling of the battery's main tunnel that led to the firing pits.

The heavy projectiles were rammed into the back end of the mortars

The powder bags used in firing the mortars weighted between 47 to 89 pounds

Once the projectile was rammed into the back end of a mortar a soldier placed a powder bag into the back end of the mortar and pushed it in.

The back ends of the mortar were then closed locked, elevated and then fired with deafening explosions when the gun powder went off.

The mortars were mounted on round platforms so they could fire 5 ½ miles in any direction.

Each firing pit had upwards of 48 soldiers working to load, aim and fire four mortars.

Mortars are high angle firing weapons that fire projectiles high into the air.

Twelve inch caliber mortars fired heavy armor piercing projectiles that could hurl down from the sky at great speeds to smash through the decks of a battleship or cruiser.

In a battle against enemy ships all sixteen guns would be fired at the same time at a battleship to blow it up.

The first test fire of the mortars sixteen mortars took place on June 22 1894 and went smoothly and without incident.

An aerial view of the Mortar Battery





a similar battery and its soldiers

POST-VISIT Activity

Students can research the following topics that pertain to the national and global conditions that led to America's quest for America's military supremacy. Have students use the internet to gather facts about their topics. Students can use the following chart to organize their research. (Old newspaper articles are great primary sources of information.)

The Spanish and American War

Industrial Revolution

Immigration

Gilded Age

Acquisition of the Philippines

Robber Barons

Imperialism

Panama Canal

Rough Riders

Wright Brothers

Henry Ford and the Model T

Child Labor

TOPIC _____

Facts	Opinions
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What happened?	Why did it happen?
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Name _____