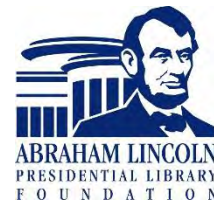




Trench Warfare

Lesson Plan created by:

Abraham Lincoln Presidential Library & Museum



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LESSON PLAN

Grade:4th-8th grade

Title: Trench Warfare Civil War Tech

Timeframe: 45-60 minutes

Brief Synopsis: As Union and Confederate forces fought during the Civil War, both armies began to use new weapons, and these weapons inspired new tactics that would change warfare forever. Participants will learn how weapons evolved during the Civil War, and how these new weapons caused a shift in military tactics on the battlefield. By acting out three different battle simulations, participants will discover for themselves how and why Civil War armies transitioned from Napoleonic tactics to trench warfare.

Essential Questions: How did weapons technology evolve during the Civil War? How did these changes affect battlefield tactics?

Objectives: Students will be able to:

1. Explain how weapons technology evolved during the Civil War
2. Explain why new weapons technology necessitated changes in battlefield tactics
3. Demonstrate Napoleonic and trench warfare tactics in mock battles.

Learning Standards: This lesson addresses the following Illinois State Learning Standards.

ELA

CCR Speaking and Listening: Comprehension and Collaboration: 1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.

Social Science

Inquiry Skills

4th-5th grade:

Developing Questions and Planning Inquiries

SS.IS.1.3-5. Develop essential questions and explain the importance of the questions to self and others.

SS.IS.2.3-5. Create supporting questions to help answer essential questions in an inquiry.

Communicating Conclusions and Taking Informed Action

SS.IS.7.3-5. Identify a range of local problems and some ways in which people are trying to address these problems.

SS.IS.8.3.3-5. Use listening, consensus- building, and voting procedures to decide on and take action in their classroom and school.

6th-8th grade:

Developing Questions and Planning Inquiries

SS.IS.1.6-8. Create essential questions to help guide inquiry about a topic.

Abraham Lincoln Presidential Library & Museum

Trench Warfare Lesson Plan

Page 2 of 12

SS.IS.2.6-8. Ask essential and focusing questions that will lead to independent research.

Communicating Conclusions and Taking Informed Action

SS.IS.8.6-8.LC. Analyze how a problem can manifest itself and the challenges and opportunities faced by those trying to address it.

SS.IS.8.6-8.MdC. Assess individual and collective capacities to take action to address problems and identify potential outcomes.

History

4th grade:

SS.H.1.4. Explain connections among historical contexts and why individuals and groups differed in their perspectives during the same historical period.

5th grade:

SS.H.3.5. Explain probable causes and effects of events and developments in U.S. history.

6th-8th grade:

SS.H.1.6-8.LC. Classify series of historical events and developments as examples of change and/or continuity.

SS.H.1.6-8.MC. Use questions generated about individuals and groups to analyze why they, and the developments they shaped, are seen as historically significant

SS.H.4.6-8.LC. Explain multiple causes and effects of historical events.

Science

4th grade:

4-PS3 Energy

4-PS3-1. Use evidence to construct an explanation relating the speed of an object to the energy of that object.

5th grade:

3-5-ETS1 Engineering Design

3-5-ETS1-1. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.

3-5-ETS1-3. Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.

6th-8th grade:

MS-ETS1 Engineering Design

MS-ETS1-1. Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.

Vocabulary Words:

| | |
|--------------------|--|
| Smooth-bore musket | musket in which the inside of the gun barrel is completely smooth, which limited accuracy and distance when shooting |
| Rifled musket | musket in which the inside of the gun barrel is grooved (“rifled”), which allowed for greater accuracy and distance when shooting |
| Tactic | Set of choices used to achieve an overall objective or goal |
| Minié bullet | Conical bullet with grooves and a hollow base, allowing it to expand when shot; first bullet to be easily loaded down the barrel of a rifle |
| Napoleonic tactics | Military tactics used by Napoleon Bonaparte and studied at West Point before the Civil War; involved infantry soldiers fighting in formation, shoulder-to-shoulder, in a few lines, with each line taking turns firing and reloading |
| Trench | A long narrow ditch; created during war to provide cover for soldiers |
| Trench warfare | A type of combat in which armies build trenches and other earthwork fortifications in order to utilize defensive tactics |

Materials:

Overall:

Content Information Sheet (in packet)

Introductory and Concluding Discussion Questions (in packet)

Large open space (gymnasium, outside area, etc.) for battle simulation activities

Activity #1 Card – *Civil War Battle: Napoleonic Tactics, Smooth-Bore Muskets* (in packet)

Activity #2 Card – *Civil War Battle: Napoleonic Tactics, Rifled Muskets* (in packet)

Activity # 3 Card – *Civil War Battle: Trench Warfare Tactics, Rifled Muskets* (in packet)

Medium for viewing online videos

Videos:

Video # 1: The Civil War in Four Minutes: Infantry Tactics

<https://www.battlefields.org/learn/videos/infantry-tactics-during-civil-war>

Video # 2: The Civil War in Four Minutes: Fortifications in the Civil War

<https://www.battlefields.org/learn/videos/fortifications-civil-war>

Materials for Battle Simulations – see Activity Cards for listing (in packet)

Procedures:

1. Introduce the concept of weapons and tactics used in the Civil War by asking students to imagine and describe a Civil War battle scene. Use Introductory Discussion Questions to probe for specifics about how students envision military tactics and weapons during that time.
2. Introduce the idea that military weapons and tactics changed throughout the Civil War.
3. Explain that we will be exploring the evolution of weaponry and tactics during the Civil War by simulating three battles.
4. Discuss how war was waged at the beginning of the Civil War.
 1. Weapons used (smooth-bore muskets)
 2. Military training prior to the war
 3. Tactics (Napoleonic)
5. Show *Video #1: The Civil War in Four Minutes: Infantry Tactics*
 1. This video will provide information about tactics used in the beginning of the Civil War, provide visuals, and introduce the change of rifled muskets and Minié balls.
6. Complete Activity #1 - *Civil War Battle: Napoleonic Tactics, Smooth-Bore Muskets*
 1. After concluding the activity, use the questions included in the Activity Card to reflect on the activity and facilitate discussion.
7. Discuss the evolution of weaponry during the Civil War. Outline the differences between smooth-bore muskets and the new rifled muskets.
8. Complete Activity #2 - *Civil War Battle: Napoleonic Tactics, Rifled Muskets*
 1. After concluding the activity, use the questions included in the Activity Card to reflect on the activity and facilitate discussion.
9. Discuss the evolution of military tactics during the Civil War. Introduce the concept of trench warfare.
10. Complete Activity #3 - *Civil War Battle: Trench Warfare Tactics, Rifled Muskets*
 1. After concluding the activity, use the questions included in the Activity Card to reflect on the activity and facilitate discussion.
11. Show *Video #2: The Civil War in Four Minutes: Fortifications in the Civil War*
 1. This video will elaborate on the different types of fortifications used in the latter part of the Civil War and show photographs and other visualizations
12. Use Concluding Discussion Questions to reflect on the lesson and summarize key points.

Introductory Discussion Questions:

1. Ask students to imagine a battle in the Civil War.
 - a. What does the battle site look like?
 - b. Where are the soldiers?
 - c. What weapons are they using?
2. How is the battle you are imagining different from battles today?
 - a. What do you think spurred those changes?

Concluding Discussion Questions:

3. How did evolutions in weapons technology change battlefield tactics?
4. Ask students to name one thing they learned about Civil War weapons and tactics today.

Resources:

Websites

The Petersburg Project – Trench Warfare in Civil War History
<http://www.petersburgproject.org/trench-warfare-in-civil-war-history.html>

Small Arms of the Civil War
<https://www.battlefields.org/learn/articles/small-arms-civil-war>

Civil War Technology – New Kinds of Weapons
<https://www.history.com/topics/american-civil-war/civil-war-technology>

Minié Ball
<https://www.history.com/topics/american-civil-war/minie-ball>

Other resources

Allen, Thomas B. and Allen, Roger MacBride. *Mr. Lincoln's High-Tech War*. Washington D.C.: National Geographic, 2009.

Gates, Lieutenant John M. "Evolution of Entrenchments During the American Civil War: A Vision for World War I Leaders." Study Project, U.S. Army War College, 1991.
<http://www.dtic.mil/dtic/tr/fulltext/u2/a238243.pdf>.

Kerr, Major Richard E. Jr. "Wall of Fire – The Rifle and Civil War Infantry Tactics." Master's Thesis, U.S. Army Command and General Staff College, 1990.
<http://www.dtic.mil/dtic/tr/fulltext/u2/a227467.pdf>.

Content Information Sheet

Weapons and Tactics Used in the Beginning of the Civil War

1. Weapons
 - a. At the beginning of the civil war, most soldiers were using smooth-bore muskets.
 - i. Why? Because both the Union and Confederate armies had a lot of them, due to their use by state militias. Also, both sides initially looked abroad to purchase additional weapons, but arms were in short supply which meant armies had to purchase the outdated smoothbore muskets
 - b. Smoothbore muskets fired short distances, and didn't aim well.
 - i. Why?
 - c. Smoothbore muskets had smooth barrels and shot round bullets.
 - i. Shooting round bullets out of a smooth barrel affected the aim and range.
 1. Without uniform contact with the barrel, the bullet "bounced" around inside the musket, which affected the flight path of the bullet.
 - a. Because the angle at release could vary.
 2. Without uniform contact with the barrel, there was also a loss of pressure. This caused the bullet to not shoot as far.
 - d. Smoothbore muskets were accurate to about 50 yards.
2. Training
 - a. Many military leaders in both the Union and Confederate armies had graduated from West Point prior to the outbreak of the war.
 - b. While at West Point, they were trained in European military tactics.
 - c. All students were trained in the tactics used by Napoleon Bonaparte
 - i. The teaching of Napoleonic Warfare was part of the foundation for the teaching of military strategy
3. Tactics
 - a. The limited range and aim of smoothbore muskets, as well as their training at military colleges such as West Point, were two main reasons Civil War Generals employed Napoleonic tactics at the beginning of the war.
 - b. What are Napoleonic tactics?
 - c. Term describes certain military tactics mastered and popularized by Napoleon Bonaparte during the Napoleonic Wars in Europe, 1803-1815.
 - d. These tactics were then used by most armies until the adoption of the rifled musket.
 - e. Napoleonic Tactics (For these purposes, focusing on infantry tactics):
 - i. Armies sought suitable terrain for battle
 1. Fields, roads, streams, villages
 2. Cities, mountains, forests, etc. were considered unsuitable terrain

- ii. Infantry regiments fought in formations, which meant being shoulder to shoulder arranged in a specific shape. Soldiers would move as a unit.
 - 1. Line formation involves two or three long rows of soldiers (i.e. – 2 lines of 50 soldiers). This formation was used when maximizing the number of guns facing an enemy. Soldiers would take turn shooting and reloading by row.
 - 2. Column formation involves soldiers marching together in a formation where the file is longer than the width of the ranks (i.e. – 100 soldiers marching 4 x 25).
 - a. Good for marching down a road and moving quickly
 - 3. Square formation involves soldiers organized in the shape of a hollow square or rectangle, usually with two or more lines of soldiers on each side. This formation was used to prevent having a rear or sides for the enemy to exploit.

Evolution of Weapons and Tactics by the End of the Civil War

1. Weapons
 - a. Although rifled muskets had been around since the Revolutionary War, they did not become commonplace until the Civil War.
 - b. As more were manufactured, rifles came to more prominent use during the war.
 - c. By the fall of 1862, most Union regiments were being issued rifled muskets.
 - d. The Confederate army wasn't far behind in getting their soldiers armed with rifled muskets.
 - e. What makes a rifled musket different than a smoothbore musket?
 - i. Unlike smoothbore muskets, which have a smooth barrel interior, rifled muskets have grooves in the interior surface of the barrel, which causes the bullet to spin as it exits the gun
 - f. In addition to the increased availability of rifled muskets, soldiers also began to use the newly invented Minié ball bullets in their rifles.
 - i. The Minié ball was invented in 1848 by French Army captains.
 - ii. The conical bullet had a hollow base and two to three grooves (Can be seen in Video #1)
 - iii. This was the first bullet to be easily loaded into the rifle barrel
 1. It was slightly narrower than the barrel, and didn't have to be jammed in
 2. The hollow base design allowed the bullet to expand when fired, so it could still push against the side of the barrel while exiting
 - iv. There was no "bouncing" like with the smoothbore musket and round balls, so no pressure was lost, and the bullet could travel much greater distances
 - v. The spin created by the rifled edges of the barrel and grooved Minié ball greatly increased the aim
 1. Like the difference between throwing a touchdown pass with a spinning football or a basketball

- g. Rifled musket v. smoothbore musket -- distance
 - i. Where smoothbore muskets were accurate to only about 50 yards, rifled muskets (shooting Minié balls) were accurate to 250 yards, even up to 400 yards with the right training
- 2. Tactics
 - a. As the Civil War continued, changes in weapons technology made a reevaluation of military tactics necessary.
 - b. With soldiers increasingly armed with rifled muskets firing Minié balls, Napoleonic tactics no longer made sense. Soldiers were able to fire on the enemy with greater accuracy from a further distance.
 - c. Additionally, the war was increasingly being fought on difficult terrain and with battlefields that spread over hundreds of miles, without front lines. These conditions weren't as conducive to typical Napoleonic tactics.
 - d. Generals and soldiers alike began to see the need for more defensive tactics.
 - e. Armies began to build fortifications and dig trenches.
 - i. These would protect the armies from assault and gave the defenders an advantage. Even successful assaults generally ended with severe casualties from the victor.
 - f. By 1864, trench warfare had become common.
 - g. As the National Park Historians of the Petersburg Project wrote, "In Fundamental ways, the Overland and Petersburg battles [of 1864-1865] more closely resembled those of the First World War fifty years later than of Gettysburg less than a year before."
 - h. Having evolved during the Civil War, trench warfare continued on as a standard military tactic in later wars, such as World War I and World War II.
 - i. Military tactics have continued to evolve. Armored warfare (the use of armored fighting vehicles) has become a major part of military strategy.
 - i. Like trenches, armored vehicles provide protection.

Activity #1 Card – Civil War Battle: Napoleonic Tactics, Smooth-Bore Muskets

Materials:

Large bag of cotton balls

OR

Large bag of craft pom poms

Purpose:

Demonstrate Napoleonic battle tactics and why they were used in battle at the beginning of the Civil War.

Activity (Gym or large open area):

1. Divide the students into two “armies.” Tell students they will be simulating a Civil War battle.
2. Give each student a few cotton balls to act as their ammunition. Discuss how the cotton balls are round, like the bullets used in **smooth-bore muskets**.
3. Have students line up, shoulder to shoulder, with the two armies facing each other. Armies should be 10-20 feet apart to begin. For this battle, they will be using **Napoleonic tactics**.
4. During battle, the armies must move forward together as they throw their cotton balls and try to hit the enemy. No soldier should leave the line to avoid being hit. They move forward as a unit.
 - a. Cotton balls on the ground can be picked up and reused, but no soldier can leave the line to retrieve them. As they move forward they should be able to pick up cotton balls thrown earlier.
5. If a soldier is hit with a cotton ball, they should immediately sit or lie down on the ground. They have been hit and are a casualty. Casualties cannot interfere with ongoing battle.
6. The teacher (General of both armies) will tell the armies when to start firing, and when the battle is over.
 - a. End the battle once there is a clear winner or most soldiers have been hit.
7. Collect all cotton balls.
8. Have soldiers sit on the floor during discussion and prep for next activity.

Questions for Discussion:

1. Were soldiers able to aim well or shoot far with their cotton ball “smooth-bore” muskets?
2. How close did you have to be to actually engage in battle?
3. Why do you think armies used Napoleonic tactics at this time?

Activity #2 Card - Civil War Battle: Napoleonic Tactics, Rifled Muskets

Materials:

15-20 small Nerf footballs

Purpose:

Demonstrate how Napoleonic battle tactics became ineffective when newer weapons (better aim/distance) were available.

Activity (Gym or large open area):

1. Discuss that as the war has progressed, weaponry has evolved. Now armies have rifled muskets in place of smooth-bore muskets. Go over the differences between the rifled and smooth-bore muskets.
2. Once again, line the two armies up, shoulder to shoulder. Tell students they will once again be simulating a Civil War battle using **Napoleonic tactics**, but that they have all received new weapons.
3. Give each student a small Nerf football. These represent their ammunition from **rifled muskets**.
4. Ensure students know the same rules apply as before. Soldiers must stand shoulder to shoulder and move as a unit. No soldier can leave the line to try to evade the enemy. Once hit, a soldier should sit or lie on the ground and are out of play til the end of battle.
 - a. Nerf balls on the ground can be picked up and reused, but no soldier can leave the line to retrieve them.
5. Once again, the teacher/General will announce the beginning and ending of battle.
 - a. End battle once there is a clear winner or most soldiers have been hit.
6. Collect all Nerf balls.
7. Have students sit on the floor during discussion and prep for the next activity.

Questions for Discussion:

1. How did the rifled muskets compare to the smooth-bore muskets?
 - a. How did this affect the battle?
 - b. How did this affect the length of the battle?
2. How close did you have to be to engage in battle?
3. What did it feel like as a soldier facing these new weapons using the old tactics?
4. How do you think the armies adapted to the new weapons?

Activity #3 Card - Civil War Battle: Trench Warfare Tactics, Rifled Muskets

Materials:

15-20 small nerf footballs

4-6 tables

OR

Other furniture that can be turned to lay on the side (desks, etc.)

Purpose:

Demonstrate trench warfare. Understand how new weapons led to a more defensive approach to battle.

Activity (Gym or large open area):

1. Discuss the beginnings of trench warfare during the latter part of the Civil War. Discuss the use of defensive strategies to protect from advanced weaponry.
2. Have your armies set up for battle, building two "trenches" by turning tables on their sides in a line to form a barricade that each army can hide behind.
3. Tell the students they will once again be simulating a Civil War battle. They will be using **trench warfare tactics** and Nerf footballs representing ammunition from **rifled muskets**.
4. Inform the students that they no longer must stand shoulder to shoulder facing the enemy during battle. They have built these trenches for their protection and use.
 - a. Soldiers who are hit must still immediately sit or lie on the floor and will be out of play until the battle ends.
 - b. Nerf footballs may be picked up and reused in battle.
5. Allow both armies to form behind their trench. Divide the Nerf footballs in two and give half to each army.
6. Once again, the teacher/General will announce the beginning and ending of battle.
 - a. End battle once there is a clear winner or most soldiers have been hit.
7. Collect all Nerf balls.
8. Have students sit on the floor during discussion.

Questions for Discussion:

1. How did the battle change by using trench warfare tactics?
 - a. How did this affect the way you attacked the enemy?
 - b. How did this affect the way the enemy attacked you?
 - c. How did this affect the length of battle?
2. Did the defensive strategies seem more natural to you? Why?
 - a. Did you feel safer?