Grades: 7-8  
Subjects: Social Studies; Career and Technical Education: Inventions & Innovations, Technological Systems  
Time Required: one 50- to 60-minute class period  
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**OVERVIEW**
In this lesson, students will explore Civil War photographs which contain structures such as buildings, bridges, and wagons. Students will closely examine each photograph, list all human-made structures, and describe what might be their vulnerabilities in time of war. Additionally, students will problem-solve ways to compensate for those vulnerabilities.

**UNDERSTANDING GOAL**
Many structures were part of the Civil War battlefield landscape, including some that were pre-existing, some that soldiers carried with them, and some that were built onsite. The learner will explore and discuss these various types of structures, their advantages and disadvantages, what materials they were made of, and how to preserve them from enemy attack.

**OBJECTIVES**
After completion of this lesson, the learner will be able to analyze photographs from the 1860s; identify various structures and construction materials depicted in the photographs; identify bibliographic information for a digital primary source; and practice strategic thinking for the defense of the depicted structures.

**INVESTIGATIVE QUESTION**
How were human-made structures vulnerable to enemy attack during the Civil War and how could they be protected?

**CURRICULUM STANDARDS**

_8TH GRADE SOCIAL STUDIES_  
8.62: Describe the outbreak of the Civil War and the resulting sectional differences, including economic, geographic, and technological advances, military strategies, roles of President Abraham Lincoln and Jefferson Davis, significance of Fort Sumter, and the geographical divisions within states.
PROCEDURE

Step 1: Begin the lesson by connecting modern structures with Civil War structures. Discuss the following questions with the class:

- What do we mean when we say “structures”? (For example, houses, barns, public buildings, railroad tracks, bridges, forts, roads, and other things that people build.)
- What structures have you been in or seen today?
- What materials were used in making these structures?
- What do you think structures were made of 150 years ago?

Tell students that in this lesson, they will explore various human-made structures during the Civil War by looking at historic photographs. They will also practice strategic thinking when deciding how best to defend various types of structures.

Step 2: Introduce students to Civil War technology by watching the Modern Marvels video clip “Civil War Tech” from the History Channel. Discuss with the class to determine basic comprehension:

- What new technologies were developed during the Civil War?
- How did these new technologies change the way war was fought?

Step 3: Now consider Civil War structures. Ask students what they think about what kind of structures would have been useful to Union and Confederate armies. What do they think about how structures would have been affected during battle and occupation? Then, explain to students that houses, schools, and churches were often used as hospitals during and after battles. Houses were used as headquarters for generals and their staff. Buildings were often destroyed by cannons, fires, or armies foraging for firewood and supplies. Bridges, railroad tracks, and telegraph poles were constantly destroyed and rebuilt to cut off or reestablish communication and supply lines. (For more information on the role of technology and structures in the Civil War, see the “Industry and Economics” stories from the National Park Service.)
**Step 3 continued:**

Discuss which construction materials the various types of structures would be made of, such as wood, lumber, concrete, steel, earthworks, bricks, stone, and canvas. How might these materials be vulnerable to new Civil War technologies? Project the image of the Tennessee State Capitol, Nashville, Tenn. Steps of the Capitol with covered guns; vista of the city beyond, or have students look at it together at their computer stations. What construction materials do they see? Then have students find the Capitol on the map, Nashville—Tenn. and vicinity 1863 /. Discuss how the Capitol was defended by occupying Union forces from Confederate attack. (For instance, point out the ring of hill forts around downtown, the guns on the steps, the proximity of the river and railroad, and the commanding view from the Capitol.)

During the Union occupation of Nashville, the Capitol was known as “Fort Andrew Johnson.” (Andrew Johnson was the military governor of the state during the war.) Why is that appropriate? Discuss how Johnson could employ other means to defend this structure, such as infantry and cavalry units, and ironclad ships in the Cumberland River.

**Step 5:**

Introduce the Defending from Enemy Attack worksheet and read aloud to the class the scenario. Partner students up, assign a photograph from the additional Library of Congress resources list (p. 4) for each team, and assign students to a computer. Allow teams to work independently for approximately 20 minutes. Monitor as needed.

**Step 6:**

Call students back to desks. Bring up each photograph on the overhead and let each team describe what it observed and answer aloud at least one of the following questions, depending on time left in class. (Or, reconfigure students into groups of four and have them present their photographs and strategies to the other students in their groups.)

- What human made structures were used during the Civil War period?
- What were these structures made from?
- How were they vulnerable to the enemy attack?
- How could these weaknesses be compensated for?
- What do you think modern military structures are made from?
Additional Library of Congress Resources:


Signal Telegraph Machine and operator - Fredericksburg http://www.loc.gov/pictures/item/2004660282/

Unidentified soldier in Union uniform with musket and bayonet in scabbard http://www.loc.gov/pictures/item/2010648777/

Railroads. Train with steam engine coming down tracks http://www.loc.gov/pictures/item/thc1995002302/PP/

Beaufort, South Carolina. Group of negroes on J.J. Smith's plantation http://www.loc.gov/pictures/item/cwp2003004650/PP/


Antietam, Md. President Lincoln and Gen. George B. McClellan in the general's tent; another view http://www.loc.gov/pictures/item/cwp2003000145/PP/

The Capitol, Nashville, (Tenn.) http://www.loc.gov/pictures/item/2005677502/

Soldier standing at graves of Federal soldiers, along stone fence, at Burnside Bridge, Antietam, Maryland http://www.loc.gov/pictures/item/96509279/

Nashville--Tenn. and vicinity 1863 / http://www.loc.gov/pictures/item/2003630454/


Nashville railroad yard and depot with locomotives http://www.loc.gov/pictures/item/cwp2003000897/PP/

Men repairing single-track railroad after Battle of Stone's River http://www.loc.gov/pictures/item/cwp2003000847/PP/

Confederate prisoners at railroad depot at Chattanooga, Tennessee http://www.loc.gov/pictures/item/cwp2003004961/PP/

Federal supply depot at Johnsonville, Tennessee http://www.loc.gov/pictures/item/cwp2003004956/PP/

Environ of Knoxville seen from south bank of Tennessee http://www.loc.gov/pictures/resource/cwpb.03477/

Blockhouse Chattanooga http://www.loc.gov/pictures/item/cwp2003000862/PP/

Nashville Military Academy http://www.loc.gov/pictures/item/cwp2003004948/PP/

Fortified railroad bridge across Cumberland River, Nashville, TN http://www.loc.gov/pictures/item/cwp2003000896/PP/

EVALUATION

This lesson will be evaluated based on:

- Class participation (50pts)
- Completing the Defending from Enemy Attack research worksheet
  - Complete, accurate, creative = 50pts
  - Provides minimum information, mostly accurate, with some strategies = 35pts
  - Incomplete or mostly inaccurate, with little or not strategy = 15pts

EXTENSION

Students can search the Library’s Web site for a map of the area around their structure and create their own map. Students will need to identify major terrain features, their structure’s location, and the defenses that they would put in place. They may use the map of Nashville from earlier as an example.

Students can make a PowerPoint presentation describing their structure and/or build the structure from a similar type of material (e.g., balsa wood for wood, plaster of Paris for concrete, and mud or dirt for earthworks).
DEFENDING FROM ENEMY ATTACK: WORKSHEET

Name _______________________________________             Period:_____           Grade:______

SCENARIO:
General Nathan Bedford Forrest has cavalry units that are operating raiding parties in your area. You are part of an intelligence team for the 123rd Infantry Co. Your commander has given you a photograph of the area. Your task is to identify all the structures in the photograph that could easily be destroyed, analyze the picture for possible areas of weakness, and suggest ways to overcome those weaknesses using the forces available.

1) Observe the picture.

What is the title of your photograph? _________________________________________________
What do you observe? _______________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
What human-made structures are visible and what do they appear to be constructed with? __________
_____________________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________

2) Look above the image and see if there are any TIFF options. If so, click on it (if more than one, click on the smallest). It will take a few minutes to download. While it is downloading, click on “About this Item” above the image and use the bibliographic information to answer these questions:

Does it state who the Creator(s) is? _______ If so, who? _______________________________________
Does it state the Date Created/Published? _______ If so, when? _______________________________
What is the Medium (type of photograph)? _____________________________________________
Is there a summary? _______ If so, what information does it give? (Paraphrase—do not copy.) ______
_____________________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
_____________________________________________________________________________
3) Use your photo viewing software (e.g., Windows Photo Viewer) to explore the photograph. Using the zoom features/mouse roller ball, scroll in and search the picture again.

What additional things do you observe? ____________________________________________
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________

What questions do you have about this photo? _________________________________________
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________

4) Your company, the 123rd Infantry, has 5 squads with 11 infantry soldiers in each; 4 of the squads are infantry soldiers, and 1 is made up of artillery with 4 cannons. Based on the information derived from the picture, what are your recommendations for your commander as to how to best protect the area from possible attack by Confederate raiding parties?
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________

Do you feel that your company can hold off an attack by one company of General Forrest’s fast riding cavalry soldiers? ________ Why or Why Not? _________________________________________
____________________________________________________________________________
____________________________________________________________________________

If not, what additional help would you need to defend your structure successfully?______________
____________________________________________________________________________
____________________________________________________________________________
____________________________________________________________________________