CARE OF THE WOUNDED

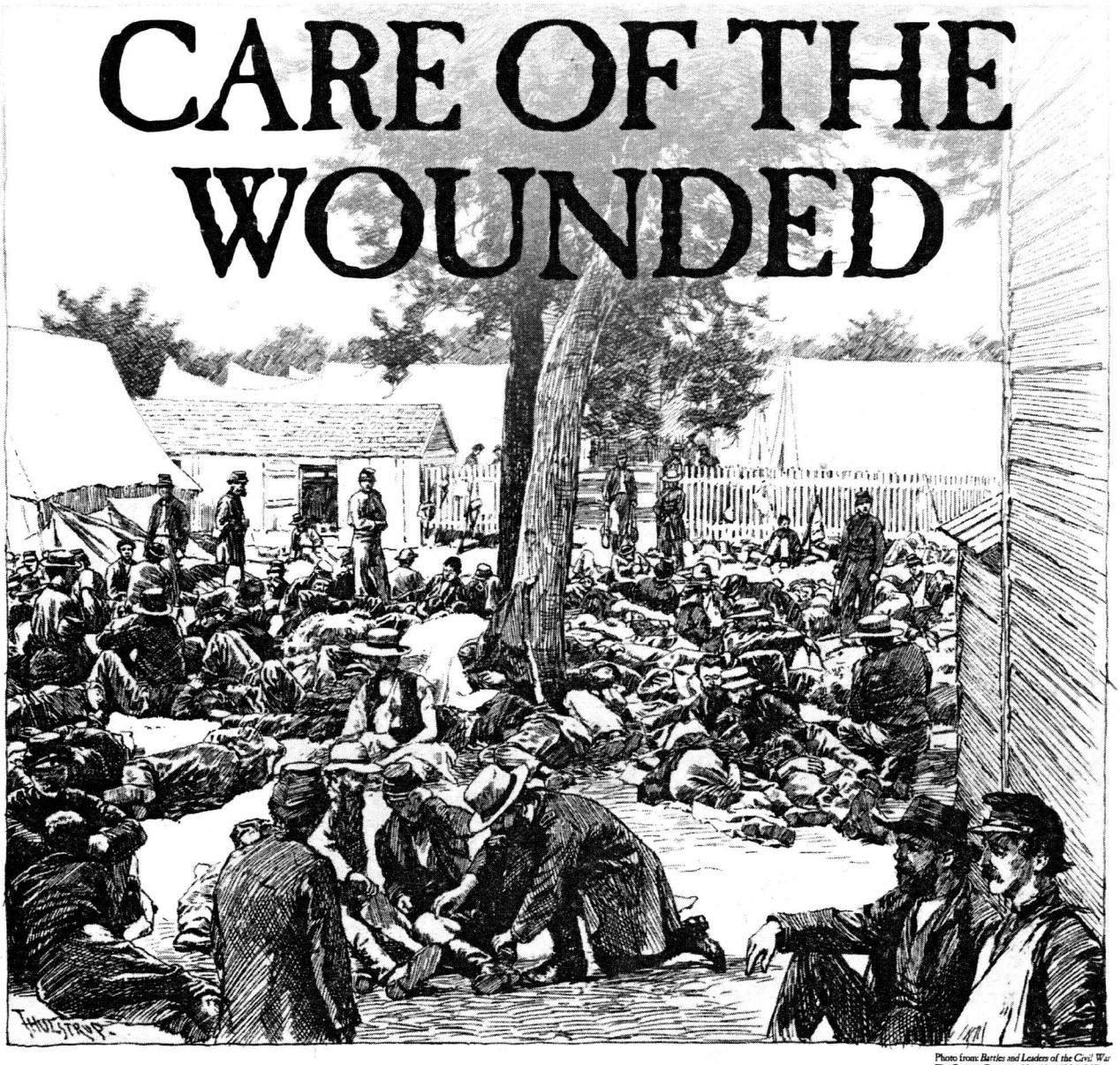


Photo from: *Battles and Leaders of the Civil War*
The Century Company, New York 1884-1887

Gettysburg National Military Park
STUDENT PROGRAM

NATIONAL PARK SERVICE
Department of the Interior

U.S. Department of Interior
National Park Service

Teachers' Guide

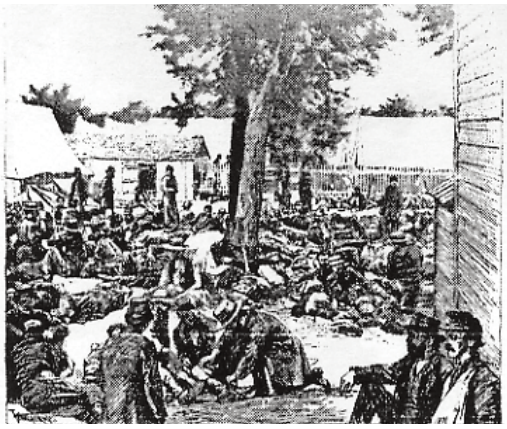


Table of Contents

Purpose and Procedure 3

***FYI* . . . Background Information for Teachers and Students**

- Causes of the American Civil War 5
- The Battle of Gettysburg 8
- Civil War Medical Vocabulary 12
- Medical Timeline 14

***Before* Your Field Trip**

- The Oath of Allegiance and the Hippocratic Oath 18
- Squad #1 Activities — *Camp Doctors* 19
  - Field Trip Identities 20
  - "Sick Call" Play 21
  - Camp Doctors Study Materials 23
  - Picture Pages 25
  - Camp Report — *Sick Call Register* 26
- Squad #2 Activities — *Battlefield Doctors* 27
  - Field Trip Identities 28
  - "Triage" Play 29
  - Battlefield Study Materials 30
  - Battle Report — *Field Hospital Register* 32
- Squad #3 Activities — *Hospital Doctors* 33
  - Field Trip Identities 34
  - "Hospital" Play 35
  - Hospital Study Materials (with Picture Pages) . . . 37
  - Hospital Report — *Certificate of Disability* 42

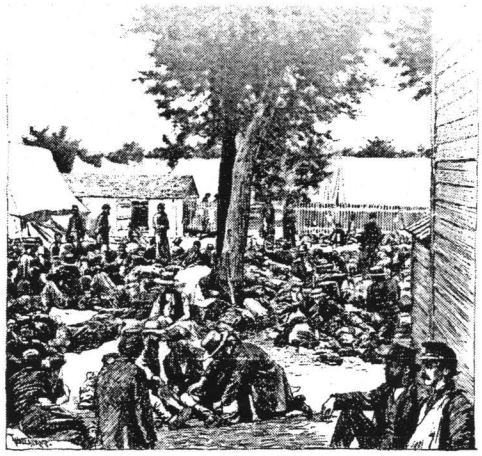
Your Field Trip Day

- Field Trip Day Procedures 43
- Overview of the Field Trip 44
- Nametags 45

***After* Your Field Trip**

- Suggested Post-Visit Activities 46
- Reading List for Teachers and Students 47

CARE OF THE WOUNDED



PURPOSE

Theme:
The Battle of Gettysburg is well known for its stories of courage and bravery on the battlefield. Lesser known is the story of the medical personnel, Union and Confederate, who had by 1863 greatly improved their bases of knowledge and organization to save lives and improve living conditions for the sick and wounded of the war.

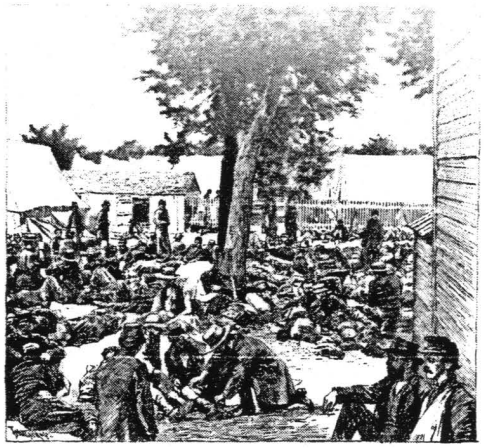
Goal:
This student program seeks to personalize the battle by having each student focus on one individual, whether it be a sick or wounded soldier, a nurse, steward or surgeon. By role-playing these individuals, students will gain a greater understanding of the organization and dedication of army medical personnel, and will be able to place Civil War medicine in the context of medical progress. Another goal is to have the students begin to think about Civil War battles and all battles in the context of their aftermaths and consequences.

Objectives:
After completing the pre-visit and on-site activities for the program, students will be able to . . .

- articulate the role of a Civil War doctor as well as the roles of other medical personnel including nurses, stewards, stretcher bearers and ambulance drivers;
- identify three common diseases of Civil War soldiers from their symptoms;
- determine the triage category and "diagnose" first-aid treatment for three types of wounds/injuries;
- explain and describe the typical treatment and recovery path of a Civil War soldier, from wound to first aid to field hospital to general hospital;
- place the caring for the wounded at Gettysburg within the context of Civil War medicine, and explain three improvements made during the course of the war.

Curriculum Standards:
These lessons are designed to coordinate with the Pennsylvania Department of Education Academic Standards for History. Among others, they address: **8.1 Historical Analysis and Skills Development** -- analysis of chronological thinking such as in time lines and context, and the analysis of historical research (primary and secondary sources); and **8.3 United States History** -- interpretation of the interaction of cultural, economic, geographical, political and social relations in United States History from 1860 to 1876 (using individuals and groups, historical evidence, and historic places).

CARE OF THE WOUNDED



PROCEDURE

To follow are four sections of material:

• *FYI* Background includes general background readings for your class, including inset boxes called "What's Your Diagnosis?" with opportunities for you to facilitate higher-level thinking discussions in your classroom. These readings and activities will serve as the "internship," preparing your students for "army medical service".

• *Before* Your Field Trip includes a medical personnel identity for each student, study materials and illustrations, and one-act plays. These plays serve to solidify their field trip roles, and provide an opportunity for each small group of students to share their knowledge with the whole class.

These preparations are essential to the success of the program!

Proceed as follows:

1.) Have everyone take the Oath of Allegiance and the Hippocratic Oath (page 18).
2.) Divide your class into three groups (squads) and assign the Field Trip Identities.
3.) Have students complete their squad's activities, including rehearsal of their plays.
4.) Make sure Squad Leaders bring along the Camp, Battlefield, and Hospital Reports (pages 26, 32, and 42) from their one-act plays.

• Your Field Trip Day is a section that includes a handout for the students about their field trip location and activities. There is also a sample diagram for you and your students to create nametags for your field trip, enabling your program ranger to better communicate with the class. Trip Day Directions for you and your bus driver can also be found in this section.

• After Your Field Trip contains explanations of possible follow up activities for when you return to the classroom, as well as a Reading List to further explore the role of the medical corps at Gettysburg and throughout the Civil War.

If at any time before or after your field trip you have questions or concerns, feel free to call our Education Office at (717) 338-4422.

We'll see you on Field Trip Day!

ESSENTIAL BACKGROUND

CAUSES OF THE AMERICAN CIVIL WAR

What was the Civil War really fought over? Let the people who lived through this emotional and complex time period tell you what it was like, and why they became involved in a war that would ultimately claim 620,000 lives.

Respond as each author might to the following questions: "What was the cause of the Civil War?"

POLITICIANS' VIEWS

Alexander Stephens, Vice President of the Confederate States of America, March 1861:

This was the immediate cause of the late rupture and present revolution. [Our] foundations are laid, its cornerstone rests, upon the great truth that the negro is not equal to the white man; that slavery, subordination to the superior race is his natural and normal condition.

Mississippi Declaration of Secession, January 1861:

*We must either submit to degradation, and to the loss of property worth four billions of money (*the estimated total market value of slaves*), or we must secede from the Union framed by our fathers, to secure this as well as every other species of property.*

President Lincoln's "House Divided" Speech, Springfield, Illinois, June 16, 1858:

A house divided against itself cannot stand. I believe this government cannot endure, permanently half slave and half free. I do not expect the Union to be dissolved -- I do not expect the house to fall -- but I do expect it will cease to be divided. It will become all one thing or all the other.

Frederick Douglass, abolitionist and former-slave, speech delivered on March 26, 1860:

If slaveholders have ruled the American Government for the last fifty years, let the anti-slavery men rule the nation for the next fifty years. If the South has made the Constitution bend to the purposes of slavery, let the North now make that instrument bend to the cause of freedom and justice. If 350,000 slaveholders have, by devoting their energies to that single end, been able to make slavery the vital and animating spirit of the American Confederacy for the last 72 years, now let the freemen of the North, who have the power in their own hands, and who can make the American Government just what they think fit, resolve to blot out for ever the foul and haggard crime, which is the blight and mildew, the curse and the disgrace of the whole United States.

Rewrite the excerpted letters in your own words, answering the question:
"What was the cause of the Civil War?"

SOLDIERS' VIEWS
(All three soldiers perished from their wounds at the battle of Gettysburg.)

Sergeant Philip Hamlin of the First Minnesota Infantry Regiment wrote home on March 1, 1862:

The example of our nation has been a fountain of light to the people of the old world foreshadowing to the struggling nationalities a future destiny gloriously delivered from the weights and embarrassments of the past which have limited privileges, combated freedom, made the distributions of blessings unequal, and restricted the culture of the mind, and the consequent elevation of man in opposition to a class endowed with special privileges only by arbitrary enactment . . . May God preserve us from ourselves.

Private George W. Ervay, 16th Michigan Volunteer Infantry, wrote the following letter excerpt on February 16, 1863, referencing the recent recruitment of African-American soldiers – an action made possible by Lincoln's Emancipation Proclamation, but not "endorsed" by soldiers such as Ervay.

. . . I think that I shall bee clear of the war soon for wee white soldiers are going to bee relieved by the n-----s. last pay day the officers had to pay taxes on the n-----s that are in the army and around Washington and it is in the New York herrild that every private soldier will have to forfit fifteen percent next pay day that will bee three & ½ dollars every two monts for the support of the counter bands some say that if they take any money out of their pay that they will disert others say that they will mutenize and I think that if they ever take any of my pay that I shall prefer the former . . .

Lieutenant Sidney Carter was from South Carolina, and had a big enough farm to own a few slaves. This makes his war reasoning in the last line all the more interesting (and perplexing from our modern viewpoint) from this January 1862 letter home.

. . . One thing I must say I want you to do is if Judson will not ally you in making the negroes know their place, I want you to call on Giles to do it. If you will be prompt when they need whipping, then they will think of this when help is not present . . . I think it would be best not to plant any cotton except enough to keep seeds (and one bale for house use). . . .Give my love to all and accept your own part. Kiss the dear little ones for me. If I never see them again, I will try to leave them a free home.

Note to teachers: Primary sources are often difficult for even the best students. Define terms within, choose and/or abbreviate excerpts, and incorporate in the manner most suitable for the age and experience level of your students.

Underlined words or phrases within the student readings above should be explained prior to class reading, if possible. For excerpted post-war sources on the causes of the war, check out the "GETTYSBURG SCHOOLBUS" -- a new blog for educators -- at www.nps.gov/gett/forteachers.

Questions for class discussion:

- Why do you think some contemporaries refer to the U.S. Constitution and some to the Declaration of Independence when referring to the coming of war?
- How were the soldiers' reasons for fighting alike? How were they different?
- How were the soldiers' reasons alike or different from the politicians' views?
- What is the difference between a contemporary and a post-war source? A primary and a secondary source? Which are most reliable, in your opinion?
- Based on these sources, and others you have read, what was the main cause of the Civil War? Support your answer.

ESSENTIAL BACKGROUND:

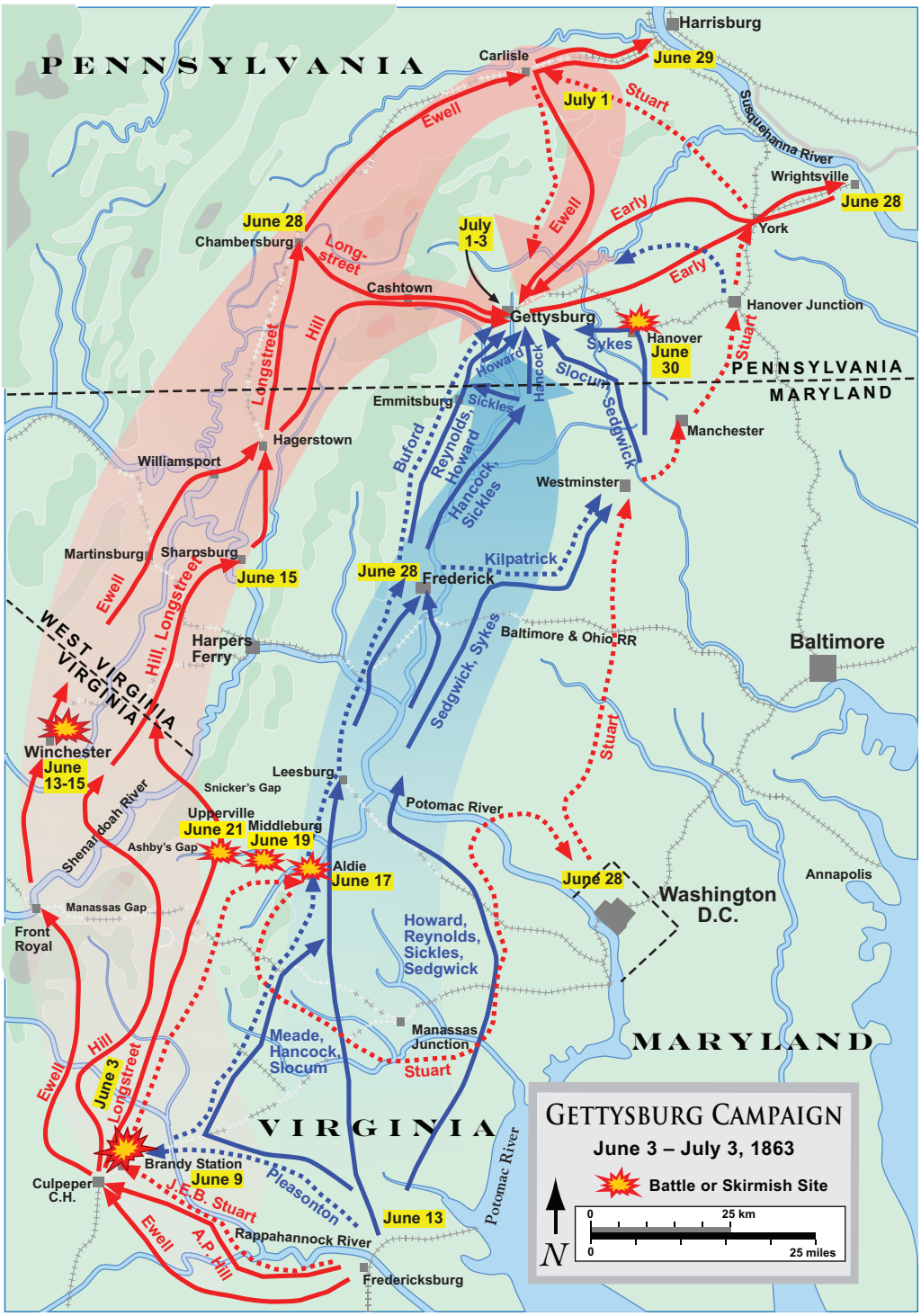
THE BATTLE OF GETTYSBURG

In the spring of 1863, the Confederacy found itself in a situation that called for action. The Confederate Army of Northern Virginia, commanded by General Robert E. Lee, had defeated the Union forces at Fredericksburg in December of 1862, however December was not the optimal time to give battle. At Chancellorsville in May of 1863, Lee again defeated the Union forces but the situation gave Lee little chance to follow up his victory. First of all, he was without a third of his army, and secondly his army would have had to cross a river in three places to resume the fight.

JUNE 1863

Lee, therefore, began moving his army north in early June, hoping to draw his enemy to a better battleground and also to find desperately needed supplies in the rich Pennsylvania farmlands, which up until then had not been nearly as damaged by the War as the Virginia farmlands. Lee also reasoned that one or more decisive victories in the North would increase pressure on the United States government to seek a peace agreement with the Confederacy. Thus, Lee and his army moved into Pennsylvania during June and eventually converged in Chambersburg, about 22 miles west of Gettysburg.

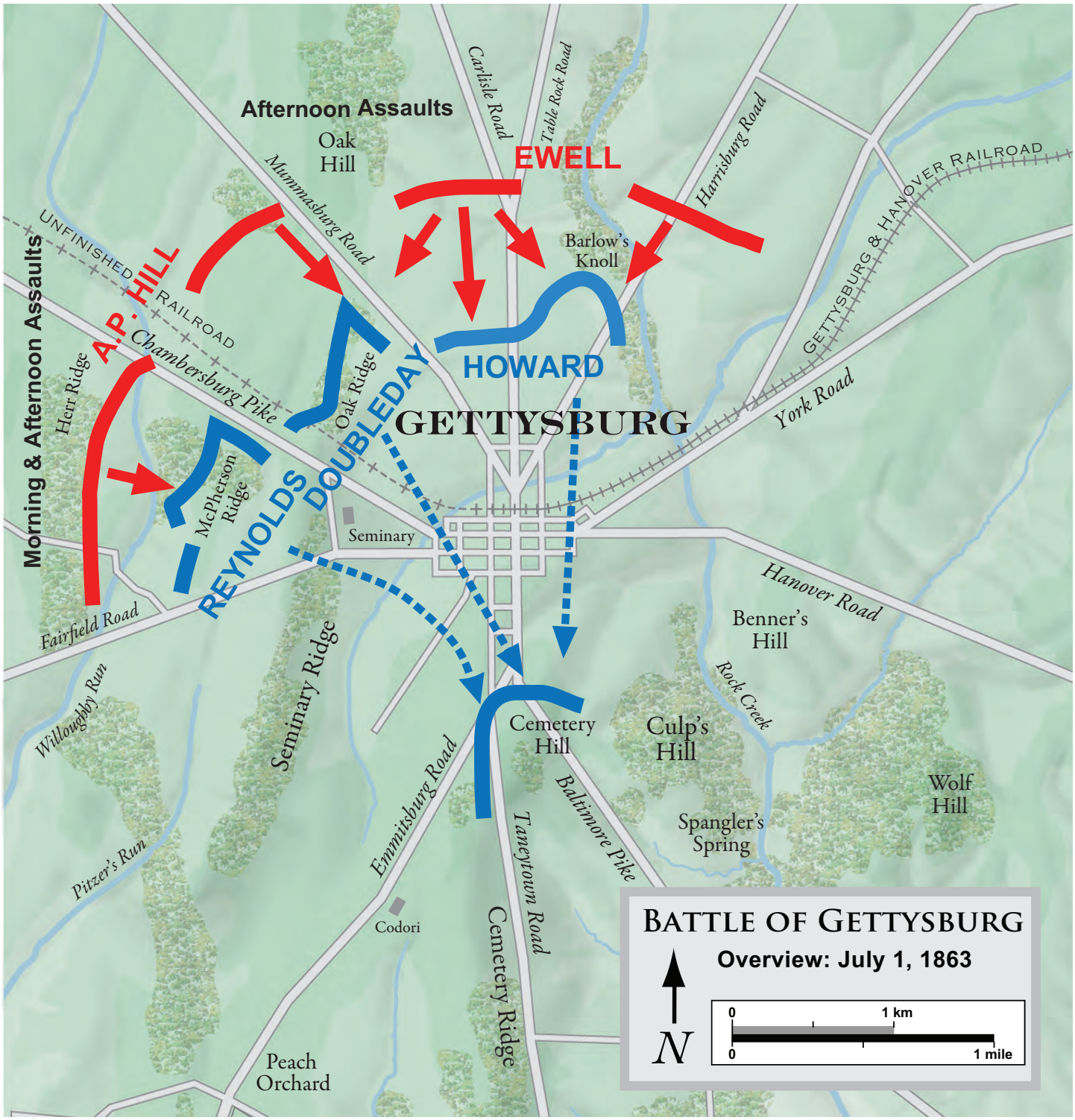
Look carefully at the map of Lee's invasion. Where do you think Lee was originally headed?



JULY 1, 1863

Neither General Lee nor General George Gordon Meade, commander of the Union Army of the Potomac, had anticipated a battle at Gettysburg on July 1. But chance brought the two forces together. This first day's battle was a definite, but indecisive victory for the Confederates. They came with greater numbers initially from the west and the north, pushing the Union forces back through town.

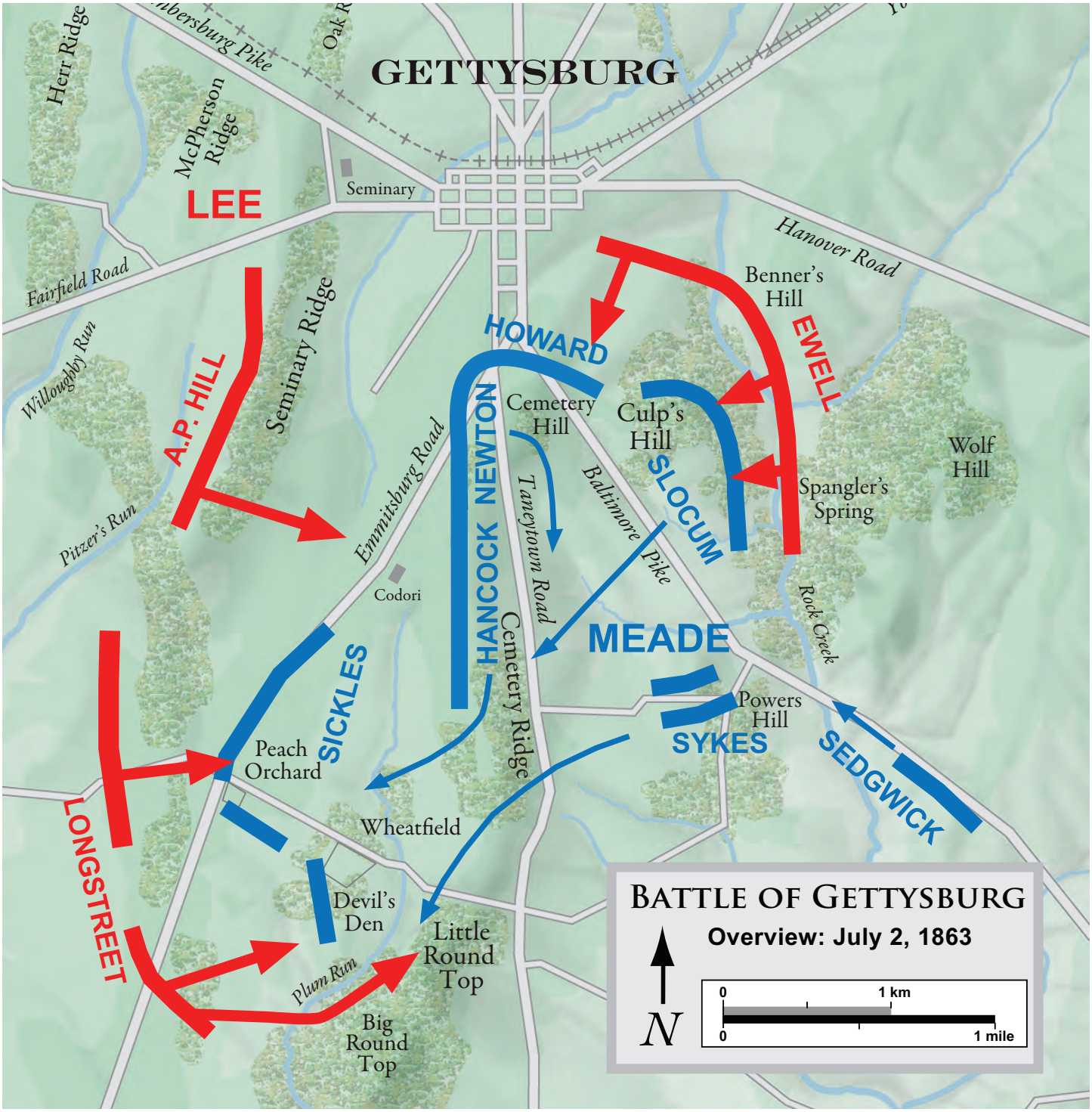
Circle the Lutheran Seminary on the map of July 1. Put a box around the town of Gettysburg. Now look closely at the geographic features on the map. After the retreat through the town of Gettysburg, why do you think the Union army chose to reform their battle lines in this position? Would you have chosen the same, or a different position? Support your answer.



JULY 2, 1863

The Union troops retreated but regrouped on the high ground south of town-on Culp's Hill, Cemetery Hill, Cemetery Ridge, and Little Round Top-and formed a long defensive line shaped like a fishhook. On July 2, the Confederates struck both ends of the Union line. They hit hard, first at Little Round Top and then at Culp's Hill and Cemetery Hill; but with high ground and craggy rock formations in their favor, the Union troops held out against these attacks, and the Confederate forces fell back and reformed along Seminary Ridge again.

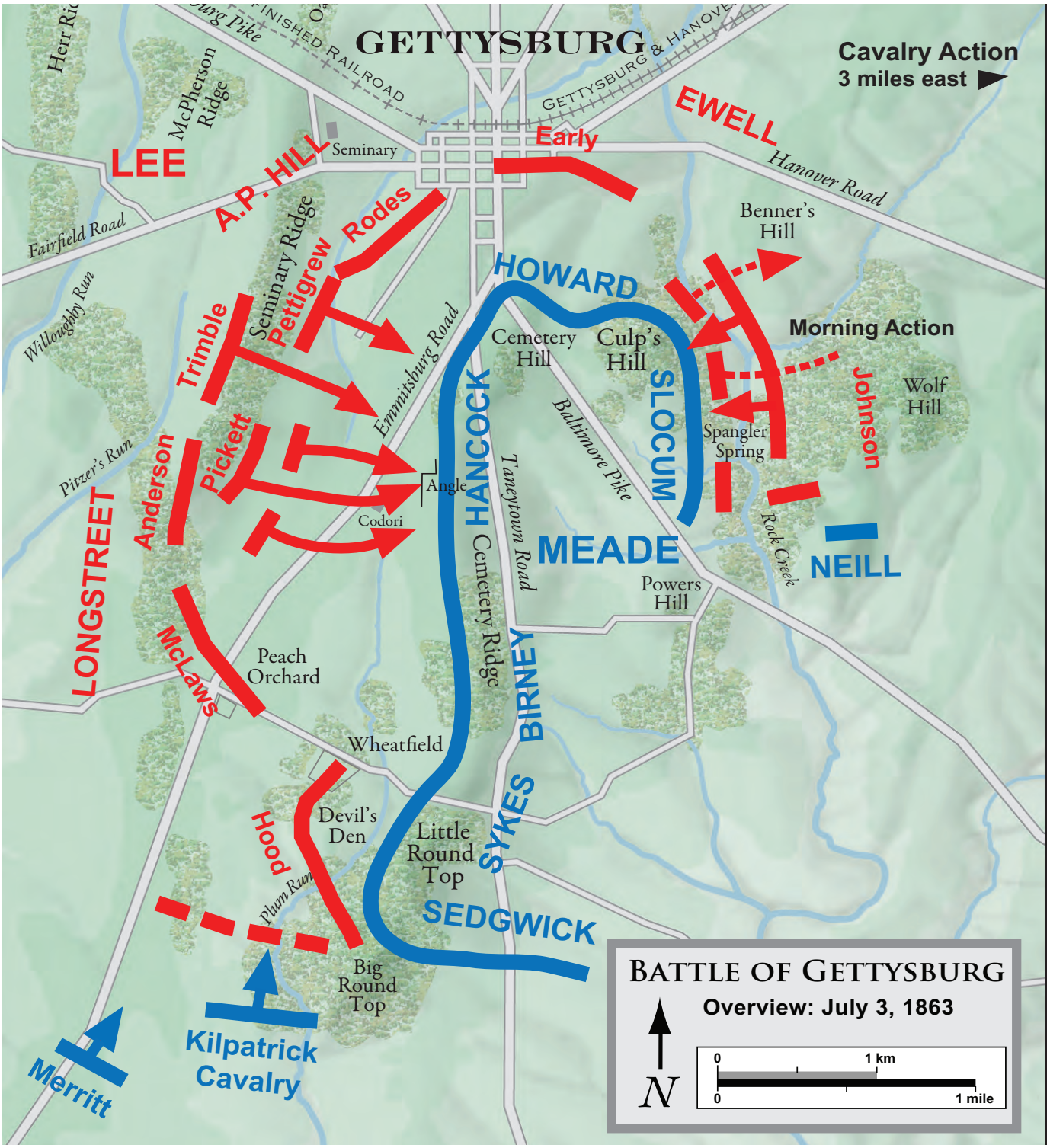
Measure the approximate length of the Union line of battle, and then the approximate length of the Confederate line of battle. Why is the Union "interior line" becoming a better position than the Confederate "exterior line"?



JULY 3, 1863

On July 3, General Lee again attacked the Union forces. But this time Lee struck at the center of the Union line since the fighting on the previous day had demonstrated the strength of the Union flanks or ends. In this massive assault, now popularly known as Pickett's Charge, the Confederates attacked the Union troops on Cemetery Ridge. But the Union Soldiers held once again and pushed the Confederates back to their original position on Seminary Ridge. The Battle of Gettysburg was over.

Locate Pickett's Division on the July 3rd map. Trace and measure its route to the center of the Union line. How far across the fields did they have to march before reaching the enemy? What major obstacle did they confront along this route?



FYI . . .

CIVIL WAR MEDICAL VOCABULARY

Camp Terms

bloodletting: draining some blood from a sick person to rid the body of disease. This once popular theory and procedure was dying out by the time of the Civil War.

cathartic: a medication that produced an emptying of the bowels.

dessicated vegetables: army ration consisting of dried vegetables, lacking flavor and most nutritional value.

dysentery: disease of the intestines which caused severe diarrhea and abdominal cramping; common among soldiers, and thousands died from it during the war.

fatigue: exhaustion; weariness.

hygiene: rules to preserve health; for soldiers this meant bathing once a week and airing out their tents.

latrine: a toilet for the use of many people; in the Civil War latrines consisted of large holes in the ground covered daily with some dirt.

malingering: faking illness to get out of military duty.

purging: ridding the body of waste, such as emptying the stomach or the bowels, by using medications.

Quinine: "wonder drug" of the Civil War era; this bitter-tasting chemical, made from a specific type of tree bark, was used to treat many sicknesses including diarrhea and fevers.

ration: fixed daily allowance of food for one soldier, issued by the government.

Sick Call: a process by which the sick lined up outside a tent to be examined and maybe given medication.

Battlefield Terms

ambulance: four-wheeled (or two-wheeled) wagon used to move the sick and wounded after battles.

anesthesia: substance (ether or chloroform) used to make patients unconscious during surgery.

casualty: a person killed, wounded or captured during a battle.

dressing station: makeshift area close to the battle where a medical officer gave first aid treatment.

evacuation: a removal of things, in this case of injured soldiers from the fields of battle.

field hospital: a temporary hospital established in times of battle in a house or barn or even out in the open, with tents and supplies brought in to tend to the wounded.

ligature: tying the ends of blood vessels in the body to stop bleeding; wire or silk thread was often used.

litter: a stretcher for carrying the sick or wounded.

Minie ball: The cone-shaped bullet fired from rifled-muskets during the Civil War. It was made of soft lead, and caused a great deal of damage to human bodies.

mortal wound: a wound that eventually results in death.

scalpel: a small, sharp, knife used by surgeons to cut through skin and other soft tissue.

shrapnel: scattered fragments of an exploding artillery shell.

tourniquet: device which wraps around an arm or leg and is tightened to control bleeding.

triage: system designed to evacuate and treat casualties so that those who most need medical attention get it first.

Hospital Terms

amputation: surgical operation used to remove an arm, leg, hand or foot; most common Civil War operation.

delirium: altered state of mind that may include bizarre dreams and speech; the state of being "out of it".

fatality: a death caused by the battle or the war.

furlough: permission granted to a soldier to leave his unit, usually to return home. A medical furlough was given when the soldier needed prolonged rest before returning to health.

gangrene: severe infection of a wound when its edges become dead and blackened. The dead tissue gave off a horrible odor, similar to the smell of spoiled meat.

general hospital: large hospital located usually in a major city. Soldiers were sent there by train to recover before they were sent home or back to their regiment.

hospital train: train made up of cars especially constructed to transport sick and wounded soldiers.

morphine: powerful pain-killing drug used during the Civil War; soldiers could become addicted to it.

pension: periodic payment from the government to disabled soldiers whose ability to perform their jobs had been affected by their military service, for example a battle wound.

prostheses: an artificial substitute for a missing part of the body, such as an arm or leg.

steward: a man in each regiment assigned various medical duties, such as giving out medications.

sutures: silk thread stitches used to sew up wounds.

tonic: liquid substance created with various ingredients in order to invigorate the patient.

What's Your Diagnosis?

Pretend that you are an army surgeon, and use three of the above words in a sentence.

**The following words are in alphabetical order;
put them in a sequential order as if you were a wounded soldier?**

ambulance, amputation, anesthesia, dressing station, field hospital, furlough, general hospital, hospital train, litter, prostheses, shrapnel.

FYI . . . MEDICAL TIMELINE

	BEFORE THE CIVIL WAR
400 B.C.	A Greek doctor named Hippocrates (hip-pok'-ruh-tees) taught that the body contained four different fluids: blood, phlegm (pronounced flem), black bile and yellow bile. Sickness, he thought, was caused by too much or too little of one of these fluids. If there was thought to be too much blood, the doctor performed a blood-letting, letting some of the blood escape. If he thought there was too little of one of the fluids, he prescribed rest and medicines thought to produce more of it in the body.
1546	A scientist named Fracastoro presented his idea that little organisms caused diseases. His theory didn't catch on.
1750	Scientists discovered that a muscle and the nerve closest to it are connected. For example, when a nerve is pinched, a nearby muscle moves. This lead to more theories about diseases, such as: Brownism Theory – the idea that all diseases resulted from too much or too little stimulation of the body. Bleeding, purging, sweating and a bland diet treated too much stimulation. Alcohol, certain drugs, and a rich diet treated too little stimulation. In other words, if you were feeling tired and weak, the doctor tried to get you up and moving. But, if you had an itchy rash, he might have prescribed drugs to make you sweat it out, and advised you to get plenty of rest.
1812	After the War of 1812, colleges & medical schools opened throughout the country, making the study of medicine more serious.
1815	After the battle of Waterloo in Europe, it took doctors and their helpers 10 days to gather the wounded from the battlefield and treat them. Also around this time, there were several new inventions such as stethoscopes, microscopes, and thermometers.
1846 - 1847	Ether (ee'-thur) and chloroform (clor'-uh-form) were introduced as anesthetics. Anesthetics made patients unaware of pain, and could even put the patient into a deep sleep. Doctors were then able to perform longer, and more complicated surgery, and began to learn more about the inside of the human body.
1857	Louis Pasteur (pas tur') developed the basic concepts of microbiology, that is the study of small organisms inside the body that may cause disease. Civil War doctors didn't really know much about this study, and didn't use it in their treatments.
1861	A man named Semmelweis wrote about hand-washing, and how it was important to decrease infections. As far as diseases are concerned though, treatments were similar to the days of Brownism (see 1750 above). Doctors made their diagnosis of wounds without the benefit of blood tests or x-rays. The thermometer and stethoscope were invented, but often not available to the army doctors as they prepared to follow the armies from battle to battle.

	DURING THE CIVIL WAR
April 1861	The Women's Nursing Bureau was established. (Before this, nursing was not considered "appropriate" for women.)
June 1861	The U.S. Sanitary Commission was created, made up of civilians who advised the army doctors and helped out as best they could in other ways. At first, the army doctors were not happy about this commission telling them what to do.
July 21, 1861	**First Battle of Bull Run.** Everyone thought that the war would not last longer than 90 days, and so the medical supplies, equipment and staff were almost the same as for the pre-war army. In some cases, the wounded had to walk 30 miles on their own to hospitals in Washington, D.C. to receive any kind of treatment.
March -- July, 1862	**Peninsula Campaign** A campaign is the mass movement of armies toward battle, or a series of battles. During this campaign, many Union soldiers were sick with diseases, and the ambulance and field hospital systems were not good enough to handle them. At the end of the campaign, ¼ of the soldiers in the Union Army of the Potomac were in hospitals. Medical Director Tripler quit and Doctor Jonathan Letterman was given his job. Now everyone knew that the war would last for a long time; something had to be done. Examples: Large general hospitals were created in Washington, D.C., Baltimore, and Philadelphia to better care for the sick and wounded. At the Battle of Fair Oaks, fought on May 31 and June 1, the conditions for the wounded were horrible. So, the Surgeon General finally accepted help from the U.S. Sanitary Commission. Also, an Ambulance Corps was organized.
August 29-30, 1862	**Second Battle of Bull Run** Some changes in the Army Medical Corps began to take affect . . . saving many lives. Director Letterman remarked in his official report that the performance of the ambulances belonging to the Army of the Potomac "was very striking."
September 17, 1862	**Battle of Antietam** Wounded were taken to nearby cities, such as Frederick, Maryland. Several field hospitals were set up using open-air tents. A woman named Clara Barton bought wagons and supplies, and began to help the wounded on her own.
October 30, 1862	Dr. Letterman created a new system for supplying the field hospitals. Each division, rather than each brigade, would set up a hospital; a division was made up of several brigades. By making the hospitals larger, and decreasing the amount of stops for the supply wagons, these hospitals were better and more quickly supplied.
December 13, 1862	**Battle of Fredericksburg** There were 9,028 soldiers wounded under General Burnside. Almost all of these wounded were removed from the fields within 24 hours, and taken by ambulance to field hospitals and local homes used as hospitals. (Compare to Battle of Waterloo in 1815.)

May 1863	The Army of the Potomac, one of the Union armies, issued General Orders #52, outlining the rules for sanitation: • camps are to be drained by a series of ditches 18 inches deep; • tents are to be struck twice a week to allow for the sunning of floors; • cooking is to be done by company cooks, and all garbage is to be burned or buried daily; • latrines are to be 8 feet deep, on which 6 inches of dirt is to be shoveled each evening; • men must have short hair, bathe twice a week, and change clothing at least once a week.
July 1-3, 1863	**Battle of Gettysburg** There were 27,000 wounded men after the battle. Each evening after that day's battle, stretcher bearers and ambulances collected the wounded. On July 6, 106 of the 650 surgeons at Gettysburg were left behind. Camp Letterman, a general hospital for the wounded who could not yet travel, was created, and did not close for over four months.
May 5-6, 1864	**Battle of the Wilderness** The new ambulance service was up and running by the time of this battle. But the wounded were sent to Fredericksburg so that the ambulances were out of the way of other army supply wagons. This was great for the supply wagons, but hard for the wounded that then had to travel much farther away to get treated. Then, the Confederates cut one of the rail lines, and many of the wounded were stuck in Fredericksburg's overcrowded and unprepared hospitals.
June 1864 – April 1865	**Siege of Petersburg and the Appomattox Campaign** During the siege, the army spent 10 months in trenches. Therefore, diarrhea and bronchitis were major issues. Evacuation and care procedures were now at their best, however.
	***AFTER* THE CIVIL WAR**
1865	Joseph Lister began the practice of cleaning his hands and surgical instruments with a solution of acid. Between 1865 and 1869, the number of people who survived operations in his care greatly increased.
Late 1860s and 1870s	Louis Pasteur identified disease-causing bacteria. With his discoveries and experiments, the world of medicine changed completely. For example, he discovered that tiny, microscopic organisms are responsible for turning wine into vinegar. His solution to destroy the organisms was to use heat . . . a process that is known as pasteurization. Today, the milk you drink is pasteurized.
1895	X-ray technology was developed.
1928	Alexander Fleming discovered penicillin; by 1940 it was used as an antibiotic.
1951	A heart-lung machine was developed, and used successfully for surgery by 1953.
1953	It was proven that tobacco causes cancer in mice.
1969	Successful fertilization of human eggs outside the body was announced.
1981	AIDS was first recognized by the U.S. Centers for Disease Control.

What's *Your* Diagnosis?

Draw a simple figure of a Civil War physician and his medical bag. What instruments can you draw sticking out of his bag? Label each one.

How would hygiene and treatment have been different during the Civil War if the doctors would have known and understood that germs caused disease and infection? Use a Venn diagram to compare treatment before and after the germ theory was proven.

Which discovery or invention on this timeline do you think was most important? Give three reasons why.

What are some examples from the timeline where ORGANIZATION saved lives?

What are some reasons why you would have had a better chance of survival after the battle of Gettysburg than after the first battle of Bull Run?

Research and add three entries to the timeline between 1981 and the present day. What advancements do you think may be added in your lifetime?

TEACHERS:
You may want to create an illustrated timeline on a classroom or hallway bulletin board.
Squad #1 can prepare and present the information in "Before the Civil War" –
Squad #2 the section called "During the Civil War" –
Squad #3 the "After the Civil War" events.

The Oath of Allegiance and The Hippocratic Oath

Now that you have served your "internship", you are qualified and ready to join the Union Army Medical Corps. But before you get your job assignment, you will be administered one oath to join the army, and another to serve in the medical profession. Listen carefully to your promises, as you may be asked to apply these oaths during your field trip to Gettysburg.

[Raise your right hand, and repeat the following Oath of Allegiance, filling in the blanks as necessary.]

I, _____ _____, appointed a <u>medical attendant</u> in the army of the United States, do solemnly swear that I will bear true allegiance to the United States of America, and that I will serve them honestly and faithfully against all their enemies or opposers whatsoever; and observe and obey the orders of the President of the United States, and the orders of the officers appointed over me, according to the rules and articles for the government of the armies of the United States.

[A friend or teacher should now sign and date as the Justice of the Peace.]

Sworn to and subscribed before me, at _____ (time), this _____ (day) day of _____ (month), _____ (year).

_____ (signature), *Justice of the Peace.*

Additionally, you most likely would have taken the Hippocratic Oath, or some version of it. This oath has been taken by doctors since the year 400 B.C. and a modern version is still administered at many medical schools today.

[Raise your right hand, and the repeat the following oath aloud.]

I swear that I will fulfill according to my ability and judgment this oath: I will apply dietetic measures for the benefit of the sick according to my ability and judgment; I will keep them from harm and injustice. I will neither give a deadly drug to anybody who asks for it, nor will I make a suggestion to this effect. Whatever houses I may visit, I will come for the benefit of the sick, remaining free of all intentional injustice, and of all mischief. If I fulfill this oath and do not violate it, may it be granted to me to enjoy life and art, being honored with fame among all men for all time to come; if I transgress it and swear falsely, may the opposite of all this be my lot.

What issues do you think may arise during your "Civil War service"?

Squad #1
The Camp Doctors

Preparation Materials

FIELD TRIP IDENTITIES
SQUAD #1

In preparation for your pre-visit unit and field trip, assign each student in this squad one of the roles listed on this page, which they are to memorize and role-play. Please follow these directions:

- Assign (or have the group select) a squad leader. Squad leader should receive the first identity below.
- Copy this page, and have the squad leader cut apart and then assign roles to her or his group.
- Make sure that the students memorize their role and their squad number, as these things correspond to other classroom activities as well as to the jobs they will be assigned at the park during their field trip.

✂----------

SQUAD #1 – located in camp, during winter season or while awaiting battle orders. No Battle is near.

1. Medical Officer – You are the regimental doctor. Your duties include helping to select the location of camp, assigning soldiers to dig the latrine and set up a cooking area, and overseeing Sick Call each day outside of your tent.

2. Assistant Medical Officer – You maintain all of the camp medical records including the Sick Call Register, and you are also responsible for measuring and dispensing the medicines and treatment supplies.

3. Latrine Digger -- You are a private in the volunteer army, and you have been ordered by the Medical Officer to dig a camp latrine for the regiment. Will you dig the latrine upstream or downstream from the camp? How deep will you dig it? How much dirt will you throw on top at the end of the day?

4. Company Cook – You are responsible for preparing the meals for 100 men, with whatever food is issued to you by the U.S. government. You don't know much about nutrition, but the Medical Officer says to be sure to prepare the dessicated vegetables as some of the men have been suffering from bleeding gums.

5. Camp Inspector – You are a member of the U.S. Sanitary Commission, a civilian group organized to improve the living conditions and health of soldiers. You check to make sure that the campsite is elevated, tents are well-ventilated and well-distanced from each other, the latrine gets a covering of dirt at the end of each day, and the men are taking two baths per week.

6. Soldier at Sick Call – You have reported to the Medical Officer for Sick Call with the following symptoms: coughing, heaviness and pain in your chest, and difficulty breathing.

7. Soldier at Sick Call -- You have reported to the Medical Officer for Sick Call with the following symptoms: the quickstep real bad (very frequent use of the latrine), a great thirst, stomach cramping.

8. Soldier at Sick Call -- You have reported to the Medical Officer for Sick Call with the following symptoms: a swollen, furry tongue, an achy feeling all over, and a very tired body.

9. Soldier at Sick Call -- You have reported to the Medical Officer for Sick Call with the following symptoms: headache, high fever, weakness, and a red rash on the trunk of your body.

10. Soldier at Sick Call -- You have reported to the Medical Officer for Sick Call with the following symptoms: bad diarrhea, high fever, delirium, weakness throughout your body.

"Sick Call"

Medical Officer: Welcome to the Medical Tent of our regiment. I am Major (*state your name*), the Medical Officer. I would like to introduce my Assistant Medical Officer, the Latrine Digger, the Company Cook, and the Camp Inspector from the U. S. Sanitary Commission. The other people you will meet are sick soldiers. Let us begin.

Assistant Medical Officer: Good Morning, Sir. The head of the latrine detail is on his way with a report.

Latrine Digger: Sir, we have completed the work on the camp latrines. We decided that the best location for them was _____ paces from the tents of the men and downstream from camp. Each latrine is _____ feet deep, one foot wide, and four feet long. We ran into one problem . . . there were numerous large rocks that had to be moved in order to dig the hole.

Medical Officer: I approve of your work. Well done.

Assistant Medical Officer: Sir, the Company Cook is ready to deliver his report.

Company Cook: Sir, we are making fresh bread for the men as a substitute for their hardtack ration. And since we are in camp, we can substitute fresh beef and pork for the usual dried, salted meats. We can now also provide the men with rice and fresh fruits.

Medical Officer: Well done. Thank you.

Assistant Medical Officer: Sir, the camp inspector is here.

Camp Inspector: Major, these men must take a bath at least twice a week and wash their face, neck, hands, and feet every day – in accordance with Army regulations. Because of all of the hard marching they have been doing, they should boil their uniforms to kill all the lice. They are lazy about having to walk to the latrines, and about covering the latrines with dirt each night. If you pay attention to my report and recommendations, your camp will have much less sickness.

Medical Officer: Thank you, sir, for your report. We will be sure to follow your sound advice. But now it is time to conduct Sick Call.

Assistant Medical Officer: (*loudly*) All soldiers feeling sick and unable to complete their daily duties report to the medical tent, immediately.

Medical Officer: Assistant, please be sure to fill out the Sick Call Register properly.

Sick Soldier #1: Sir, we marched through a rainstorm yesterday, and last night I slept in my damp uniform. I am now coughing, there is a heaviness in my chest, and I'm having trouble breathing.

Medical Officer: It sounds to me as if you have _____.

(*Park Ranger can help you plan the treatment for this soldier.*)

Sick Soldier #2: Sir, I think I may have eaten some bad cherries and now I've got the *quickstep*!

Medical Officer: Soldier, you have _____.

(*Park Ranger can help you plan the treatment for this soldier.*)

Sick Soldier #3: Sir, I have a swollen, furry tongue, and I am achy and very tired.

Medical Officer: Soldier, don't lie to me! You are clearly_____.

(*Park Ranger can help you plan the "treatment" for this soldier.*)

Sick Soldier #4: Sir, I have had a high fever for three days. I also have a headache, and this red rash on my chest.

Medical Officer: Soldier, I am afraid you have _____.

(*Park Ranger can help you plan the treatment for this soldier.*)

Sick Soldier #5: Sir, I think I drank some bad water. I have the quickstep real bad, I am so weak and depressed, and I'm running a high fever.

Medical Officer: Soldier, you have _____.

(*Park Ranger can help you plan the treatment for this soldier.*)

[The *Assistant Medical Officer* hands the *Medical Officer* a note from a messenger.]

Medical Officer: Men -- the rebel army is on the move. We must break camp and prepare to march. Company Cook – immediately prepare three days' cooked rations for the men. Latrine Diggers -- fill in the latrines at once.

We may soon have a battle on our hands.

Common Diseases of the Civil War
Squad #1 Study Materials

DISEASE	SYMPTOMS	CAUSE	TREATMENT	CASUALTIES
Diarrhea and dysentery **Also referred to as "fluxes".**	Diarrhea = loose, watery stools and low grade fever Dysentery = bloody stools and high fever Patient might also become dehydrated, delirious and weak.	Then: Things that irritate the intestines, such as marshy water or badly cooked food. Now: Bacteria-contaminated food or water supply.	Purging. Opium and morphine to relieve the pain of stomach cramping. Tonics to improve strength.	Produced more sickness and death than any other form of disease. Over 37,794 men died in the Union army from these diseases.
Typhoid Fever **Also referred to as "crowd poisoning".**	Continuous rising fever, fatigue, depression, rose-colored rash on chest and abdomen, diarrhea.	Then: exposure to harmful substances found in the air under crowded conditions. Now: An infection caused by the bacterium *Salmonella typhi.*	Purging Stimulants to rouse the body. Baths to reduce fever. Patient isolated, ordered to bed rest, and fed a liquid or bland diet.	Resulted in 27,050 Union deaths
Typhus	Continuous high fever, headache, depression, constipation, pink or red rash on trunk of body.	Then: Skin disorder caused by campsite where discovered. Now: A tiny organism spread from soldier to soldier through body lice.	Burning or boiling of uniform. Something to relieve rash. Isolation	Resulted in 850 Union deaths.
Malaria **Also known as Swamp Fever, or Marsh Fever**	Periods of high fever and chills, followed by normal temperature. Shaking chills, head/ muscle aches, nausea/vomiting. Pale skin, anxiousness, and delirium.	Then: bad, stagnant air, such as that found around swamps and marshes. Now: parasitic organisms spread through the female mosquito.	Quinine. Also sometimes soldiers were treated with purging, blood-letting, calomel and turpentine.	There were 4,287 fatalities in the Union army from malaria, and another 4,059 deaths from the typho-malarial diseases (diseases that had a mix of symptoms).

DISEASE	SYMPTOMS	CAUSE	TREATMENT	CASUALTIES
Measles **"Childhood disease" along with mumps, diphtheria, whooping cough, chicken pox.**	Weakness, high fever, bright red spots on body. Sometimes accompanied by sore throat.	Now we know that viruses cause these diseases, and that soldiers living away from home for the first time and sleeping on the ground without good food would be especially susceptible.	Isolation, kept warm, turpentine applied to rash, followed by warm applications. Small doses of opium.	4,287 deaths in Union army from measles. 72 Union deaths from mumps.
Pneumonia	Chest pain and difficulty breathing, rapid pulse, hot skin. Coughing, headaches.	Then: Phlegm in lungs Now: Infection in the lung's air sacs.	Various . . . Bleeding or cupping procedures to decrease Phlegm Morphine Hot, moist cloths to the chest	61,202 cases reported. 14,738 deaths.
Scurvy	Weakness, Fatigue, Diarrhea, bruises, softening and bleeding of the gums.	Then: Unknown but they recognized that it had something to do with their diet. Now: a deficiency of Vitamin C, and so a lack of vegetables could bring about the disease.	Chlorate of potash to harden the gums. Raw potatoes and vinegar. Lemon or lime juice, or fresh vegetables as opposed to the dessicated vegetables which the soldiers sometimes refused to eat	30,714 cases reported. 383 deaths attributed directly to the disease.
Malingering	Soldiers would fake the symptoms for deafness, epilepsy, paralysis and even diarrhea and dysentary to get out of duty. They might also simply report general symptoms, such as "I'm feeling tired or achy."	Some soldiers went to great lengths to fake illnesses, chewing on rose petals to give their tongues a strange coating (condition of the tongue was almost always noted in diagnosis), and even using the waste of others to convince the doctor they had diarrhea.	Doctors became wiser and wiser as the war went on. Tests for these "illnesses" were even created, such as the one by Dr. Samuel Gross, suggesting that one claiming paralysis should be tested by "tickling the soldier's feet when he is asleep, or threatening him with the hot iron."	No deaths of course resulted from a faked illness, however soldiers would suffer from punishments if found out!

Picture Pages

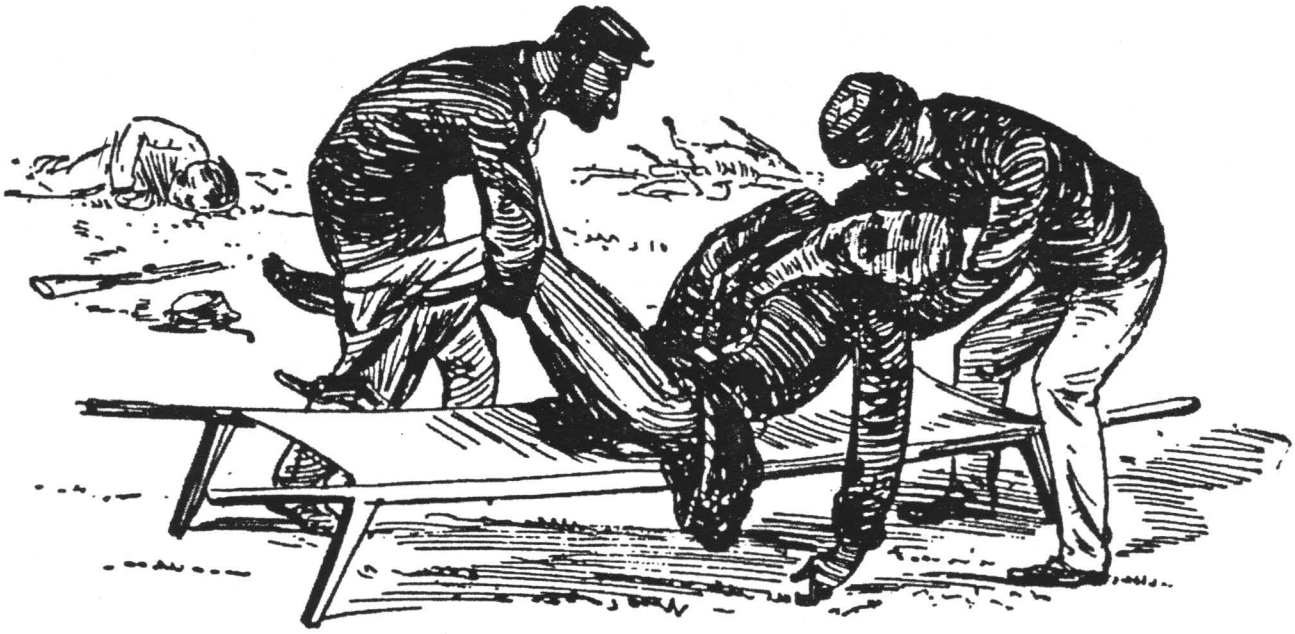
Squad #1

U.S. ARMY MEDICAL DEPARTMENT
SICK CALL REGISTER

NAME	REGT	COMPLAINT	ADMIT	RETURN TO DUTY	DIS-CHARGE	SENT TO GEN. HOSP.	FUR-LOUGH	DIED	REMARKS

DATE _____

Squad #2
Battlefield Doctors



Preparation Materials

FIELD TRIP IDENTITIES
SQUAD #2

In preparation for your pre-visit unit and field trip, assign each student in this squad one of the roles listed on this page, which they are to memorize and role-play. Please follow these directions:

- Assign (or have the group select) a squad leader. Squad leader should receive the first identity below.
- Copy this page, and have the squad leader cut apart and then assign roles to his or her group.
- Make sure that the students memorize their role and their squad number, as these things correspond to other classroom activities as well as to the jobs they will be assigned at the park during their field trip.

✂----------

SQUAD #2 – located at Field Hospital close to the lines of battle, inside a farmhouse or barn. Battle is near.

11. Field Hospital Surgeon – You are in charge of setting up a Field Hospital, probably in someone's house or barn. You have been supplied with three tents and other basic supplies. Procedures that will fill your day include amputations, trephinations, bullet removals, and stitching deep cuts.

12. Field Hospital Assistant Surgeon – You are to assist the Surgeon with the set-up and operation of the Field Hospital. Procedures that you will be performing include: controlling hemorrhages (heavy bleeding), splinting fractures, giving pain medication, and anything else that will better prepare the soldiers for a bumpy ambulance ride to the divisional hospital further behind enemy lines.

13. First-Aid Officer – Your job is to head up to the battle, just behind the men of your regiment, and give any initial first aid before they are sent to the field hospital. You carry only a medical knapsack that includes opium pills, a bottle of brandy, tourniquets, bandages, a bullet probe and forceps.

14. Musician/Stretcher bearer – You are a regimental musician, but during battle you have been detailed as a stretcher bearer. You did not like this job at first since it was very dangerous. But now you have gone through many drills and you know it is very important and saves lives. You also know that the best way to carry a soldier is to have the front man step off with his left foot while you step off with your right foot.

15. Wounded Soldier -- You have been taken to the Field Hospital with the following battle wound:
A shell exploded over my head and a piece of shrapnel tore into my skull.

16. Wounded Soldier – You have been taken to the Field Hospital with the following battle wound:
While on the firing line engaging the enemy, a musket ball creased my right hand.

17. Wounded Soldier – You have been taken to the Field Hospital with the following battle wound:
During hand-to-hand combat, an enemy soldier thrust his bayonet into my left thigh. It's bleeding heavily, but I think the bone is alright.

18. Wounded Soldier – You have been taken to the Field Hospital with the following battle wound:
When the enemy's line fired a volley at 200 yards, a minie ball struck my right leg below the knee. It feels like the bone is crushed.

19. Wounded Soldier -- You have been taken to the Field Hospital with the following battle wound:
While charging the enemy, a canister ball struck me and tore into my abdomen.

20. Ambulance Driver – You are a sergeant in charge of the ambulance wagons for your regiment. You will drive the patients from the field hospital to the divisional hospital during and after the battle. You must also maintain the upkeep of the ambulance wagon, as well as care for the horses used to pull it.

"Triage"

Field Hospital Surgeon: Welcome to the field hospital. We have established this field hospital not far from the front lines of battle and are now awaiting the wounded.

I would like to introduce my Assistant Surgeon, the First Aid Officer, the Stretcher bearer, and the Ambulance Driver. Other people will be wounded soldiers. Let us begin.

Surgeon: Assistant, we need to prepare to receive the wounded from the field. Point the First Aid Officer and Stretcher Bearer to the front lines, and tell them to bring us only those wounded we can save, and not the ones who are only slightly wounded or those beyond our help.

(Surgeons move to the side to continue their hospital set up procedures;
First Aid Officer and Stretcher Bearers approach the wounded soldiers.)

First Aid Officer: We have only two stretchers and must quickly decide which two soldiers go back to the field hospital first.

Wounded Soldier #1: A shell exploded over my head and a fragment of the shell may have fractured my skull. Please, is there a minister who can pray with me?

First Aid Officer: Soldier, you can see a minister at the field hospital. Right now, I must bandage your head and give you something for the pain.

Wounded Soldier #2: A minie ball creased my right hand. It feels like it is on fire!

First Aid Officer: Soldier, I will clean your wound out and then you are going back to the firing line. There is no time for minor wounds at the field hospital.

Wounded Soldier #3: While engaged in hand-to-hand combat a Confederate soldier thrust his bayonet into my left thigh. There is some bleeding, but I can still walk.

First Aid Officer: I will control the bleeding and bandage the wound. Since the bone is not fractured, you'll need to wait here until we get more stretchers . . . unless you want to walk to the hospital.

Wounded Soldier #4: The enemy fired at my line from a distance of about 400 yards. A minie ball struck my right leg below the knee. Will I lose my leg?

First Aid Officer: The surgeon will need to examine your wound more closely to determine that, and we have no time to lose. Stretcher bearers – get this man back to the field hospital as fast as you can!

Wounded Soldier #5: While charging you Yanks, a canister ball struck me in the stomach. I know stomach wounds are often fatal. If I am going to die, just put me out of my misery now.

First Aid Officer: Reb, we have a stretcher for you, and here's something for your pain. The surgeon will get a closer look at your wound and the damage to your organs, so hang in there.

Back at the Field Hospital, Surgeon and Assistant Surgeon prepare for the amputation.
They assist the park ranger throughout the surgical portion of the program.

Ambulance Driver: Sir, the enemy cannon balls are coming too close to this hospital. We have to move now! Please help me get soldiers into the ambulance and I will get us to safety behind the lines.

Civil War Wound Treatment
Squad #2 Study Materials

WOUND	PROCEDURE
Bullet Extraction:	1. Locate the bullet. 2. Remove the bullet. 3. Dress wound with moist lint covered with oiled silk.
Head Wound:	Determine if the wound involves just the scalp (superficial), or also the skull and brain. If superficial (not very deep): 1. Cover with moist lint. 2. Feed patient very little, and make sure he gets rest. 3. Keep an eye on the "pus" to make sure it does not spread. If the scalp is cut, and skull fracture is pushed down: 1. Enlarge the wound. 2. Carefully lift out and remove bone fragments from brain surface. 3. Remove bullet only if it is in easy reach. If wound continues to develop underneath the cracked skull, symptoms will develop 15 to 30 days after the injury. Then: 1. Chance for recovery is poor, but you might eventually try trephining. This procedure was only attempted if all else failed, and involved drilling a hole in the skull to release the pressure on the brain.
Chest Wound:	1. Check to see if the bullet punctured the lining around the lungs, causing the lung or lungs to collapse or sink. Signs that a lung did collapse include *shortness of breath* and a *dull sound* when fingers are tapped on the chest wall. If the bullet penetrated even further through the lung tissue, a frothy *air and blood mixture* would ooze from the wound. At this point, it was thought that the patient would die. 2. Ligate (tie off) any bleeding arteries and remove any rib splinters that might further puncture the air sacks. 3. Pack lint under a large chest bandage, prescribe rest and a dose of opium. (Your hope is that the air sacks will seal themselves, re-expanding the lung.) 4. Keep an eye on the patient, making sure that pleurisy or pneumonia (life-threatening illnesses) do not develop. If the wound is to the heart or a major chest artery, the patient is beyond your help.
Abdomen Wound:	Make the patient as comfortable as possible, but have nurse take down his last letter home. 87 out of every 100 soldiers with this wound died from it because there is no bone protection around organs in the abdomen like there is for the brain and for the lungs. Once a bullet penetrates one or more organs, the soldier goes into shock. If he fights for life, peritonitis (infection) would most likely set in and kill him later on. Follow this procedure however:

	1.) Try to determine the path of the bullet by re-positioning the soldier like he was when he was hit. Look for the following symptoms to determine if organs have been damaged: *feeble pulse, loss of strength, tension* of the abdomen, *hiccups,* and *vomiting.* 2.) If hiccups and bloody vomiting are symptoms, assume the stomach has been damaged. 3.) If there is blood when the patient urinates or has a bowel movement, assume the intestines, kidneys or bladder have been damaged. Base your treatment on the success or failure of similar cases you have treated or read about. For example, you may attempt to enlarge a wound and sew up the intestine. You may prescribe purgatives, medicines that cause the patient to empty his system, if the wound is to the stomach. You would almost always restrict food and drink, and prescribe opium for the pain.
Wounds to Extremities (arms, hands, legs, feet):	1. Examine the soldier for any bone breaks that haven't perforated the skin. If no bone breaks, control bleeding and apply a wet compress to open flesh. If there is a bone break, splint the fracture temporarily, and get patient to field hospital as quickly as possible. 2. At field hospital, surgeon needs to locate the break immediately. He will look for a shortening of the limb, as well as a grating sound when the two broken ends of the bone rub together. 3. Once the break is located, surgeon joins the broken edges, and applies two wooden splints, one for each side of the limb. Additionally, traction is prescribed for larger bones, such as for the thigh bone. If skin is torn, decide on whether you will perform: 1. a resection – removing the injured part of the limb only – or; 2. an amputation -- removing the entire limb. Consider the following before making this decision: age, habits and health of patient, number, nature and importance of the tissues involved.

THE TRIAGE SYSTEM	
CATEGORY I	Soldiers who were thought to have the best chance of survival were quickly treated at field dressing stations and were then the first ones evacuated by stretcher or ambulance to a field hospital. Soldiers in this category included those who needed amputations.
CATEGORY II	Soldiers thought to have a good chance of survival were evacuated to a hospital, or told to walk there, and were then treated as time allowed. Soldiers with minor injuries would have to wait for days to be treated, while amputations and other more serious procedures were going on. Soldiers in this category included minor bone fractures, abrasions and lacerations where the bleeding was controlled.
CATEGORY III	Soldiers thought to have mortal wounds were either left to die or were evacuated from the field last, and kept as comfortable as possible. Soldiers in this category included those with penetrating abdominal, chest and head wounds.

U.S. ARMY MEDICAL DEPARTMENT
FIELD HOSPITAL REGISTER

NAME	REGT	COMPLAINT	TREATMENT REMARKS	RETURN TO DUTY	SURG-ERY	DIS-CHARGE	SENT TO GEN. HOSP.	FUR-LOUGH	DIED

DATE _____

Squad #3
Hospital Doctors

Preparation Materials

FIELD TRIP IDENTITIES
SQUAD #3

In preparation for your pre-visit unit and field trip, assign each student in this squad one of the roles listed on this page, which they are to memorize and role-play. Please follow these directions:

- Assign (or have the group select) a squad leader. Squad leader should receive the first identity below.
- Copy this page, and have the squad leader cut apart and then assign roles to his or her group.
- Make sure that the students memorize their role and their squad number, as these things correspond to other classroom activities as well as to the jobs they will be assigned at the park during their field trip.

✂----------

SQUAD #3 – located at the Divisional Hospital more than a mile behind the battle lines, or at a General Hospital in a nearby large city.
The battle has passed, and the army is once again on the move.

21. Surgeon-in-Charge – You are in charge of the hospital, and will make all of the treatment and surgical decisions. You are also responsible for keeping the hospital well-supplied and well-staffed.

22. Medical Officer – You have been selected to serve as a surgeon at this hospital based on your skill and compassion. You keep records for every patient brought into this hospital -- very important to the families looking for loved ones, and for proper treatment once the soldier is discharged.

23. Assistant Surgeon – You will administer anesthesia during surgeries, either ether or chloroform, monitoring the patient during the surgery to make sure that he has not received too much or too little. You are also responsible for the proper burial of those soldiers who have died at the hospital.

24. Hospital Steward – You are the chief wardmaster who oversees all medical property, and the distribution of medicines, clothing, and blankets. You are also responsible for the diets of the soldiers, the cleanliness of the ward, and proper discipline of the patients and staff.

25. Nurse – You are in charge of the wound dressings and cleanliness of half of the patients in your ward (approximately 25 soldiers). Other duties include scrubbing the ward floors, feeding unable patients, and emptying bed pans. If you are a male nurse, you must be "physically fit, intelligent, honest, reliable". If you are a female nurse, you must dress plainly and be at least 30 years of age.

26. Sanitary Commissioner – You are the head of a team sent from Washington D.C. to deliver needed supplies, such as chloroform, morphine, dressings, sponges, shirts, and food. Also, you and your team of Commission members have rewrapped and delivered packages sent to the soldiers from home.

27. Hospital Patient -- You were a farmer before you volunteered to fight in this war. You are recovering from a severe hand wound, and you are worried it will affect your ability to make a living back home.

28. Hospital Patient – You have had your leg amputated at the knee, and will soon be fit for a fake leg, or prosthesis. At first you were just happy to be alive, but now you're worried about what your family will think of you, and whether or not you can lead a normal life. You are still really in a great deal of pain.

29. Hospital Patient -- They have told you that you are almost sure to die from complications of your wound. The nurse is helping you prepare a last letter home to your loved ones.

30. Hospital Patient – You fought bravely in your first battle, and they are just about ready to send you back to your unit. Although everyone is treating you like a hero, you are increasingly anxious about fighting in another battle.

"Hospital"

Surgeon-in-Charge: Good day. I am Major (*fill in your name*) and I would like to welcome everyone to the Adams General Hospital, Washington, D.C. It is our job to work together and prepare the soldiers to return to the army, or to be discharged. Let us begin.

Surgeon-in-Charge: (*in a meeting with Medical Officer, Assistant Surgeon and the Hospital Steward.*) Thank you for your hard work. Gentlemen, it is our job to provide the best care for these brave men, and to do that we need organization. I need your weekly reports at once.

Assistant Surgeon: Sir, our chloroform supply is getting low, and we are going to need it for the surgeries. We are also out of wood to make headboards for the soldiers we have lost, and to provide fuel for the cooking stoves.

Surgeon-in-Charge: Get some boards from the nearby barns for the headboards and get a detail together to start taking down some more of the fence rails for cooking.

Steward, I need your report.

Hospital Steward: Sir, the army is on the move and there is the possibility of a major battle very shortly. If we don't get some more blankets, medicines, and food, we are going to be in trouble when the wounded start pouring in.

Nurse (*Knocks on the door*): Sir, the U. S. Sanitary Commissioner is here.

Sanitary Commissioner: Major_____, I have just arrived with a wagon-load of supplies for the hospital. I have brought blankets, medicines, food, and chloroform. I am also here to conduct an inspection of your hospital.

Surgeon-in-Charge: Thank you, sir. The supplies are most welcomed. I am sure you will find everything in order at this hospital.

Sanitary Commissioner (*walking around as though inspecting*): Major, I would recommend you expand the choice of food for the men, and that the windows be opened more to allow for better airflow through the wards. Excuse me, I must go and see to the unloading of the supplies.

Surgeon-in-Charge: I will join you, Commissioner. Nurse –brief the Medical Officer on the remaining patients in your ward so that he can determine if they are ready to return to their unit, or to return home. Medical Officer – If they are returning home, carefully complete their Certificates of Disability. Good Day.

Nurse (*to Medical Officer*): Right this way, sir.

Hospital Patient #1: Sir, I am recovering from a severe hand wound. I was a farmer before enlisting, and my enlistment is soon up. Will I be able to go back to farming?

Medical Officer: Soldier, I see no reason why you could not go back to farming. There was no need to amputate any fingers and I see no sign of irritation on your wound.

Hospital Patient #2: Sir, I have applied for an artificial limb to replace my amputated leg. I am happy to be alive but worried about what my family will think of me and whether I can lead a normal life. I am also still in a great deal of pain.

Medical Officer: Soldier, your family should be proud of your sacrifice. I have known several men who have lost a limb and they lead fairly normal lives. I will prescribe some opium pills for the pain, but I caution you to use them sparingly.

Hospital Patient #3: Sir, I have been told that because of my wounds I will probably die within a few days. I know there is nothing you can do. The Nurse is kind enough to help me write a few last lines to my parents.

Medical Officer: Son, I will have the hospital minister come and stay with you. Nurse, thank you for helping this brave young man.

Hospital Patient #4: Sir, I was wounded in my first battle, and now everyone is treating me like a hero. But I am worried about fighting in another battle; I may not be so lucky next time. Do you have to send me back, sir?

Medical Officer: I understand how you feel. But we must all continue to do our duty until this war is over and the nation is reunited.

(Medical Officer walks back to the Surgeon-in-Charge. Everyone gathers around them.)

Hospital Steward: Sir, this telegram has just arrived.

Surgeon-in-Charge: I have just been informed that a major battle has been fought and we can expect more wounded soldiers tomorrow. Get as much rest tonight as you can. (*To himself, he mutters*) Oh, when will this cruel war be over?

HAND-BOOK FOR THE MILITARY SURGEON

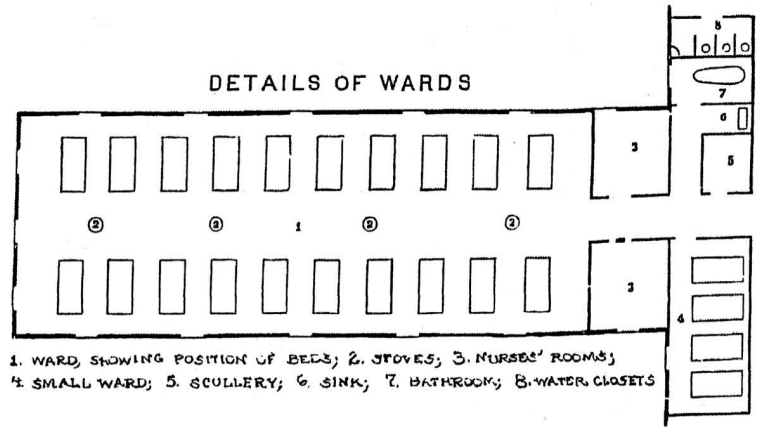
SQUAD #3 STUDY MATERIALS

This handbook has been designed
by the United States government
to help you set-up a general hospital
for the treatment of our brave soldiers.

By following these guidelines,
and dedicating yourself to the cause,
you will be able to return soldiers back to their units,
or to their homes and families.

Good luck!

CHAPTER 1:
ORGANIZATION OF THE ARMY GENERAL HOSPITAL



Organization and discipline will be the keys to the success of your Army General Hospital, and to the saving of lives.

Create the hospital with separate buildings, called wards, with open-air hallways surrounding the wards. Fresh air is very important for recovery; stale air is toxic.

Neatness will be essential. A tidy, uncluttered ward will make it easier to clean and white-wash, remove garbage and sewage, and get from patient to patient.

Each ward should measure approximately 30 by 100 feet and contain 50 to 60 patients. Assign two nurses to each ward.

In addition to the patient wards, your hospital will need a food preparation area, a latrine, a cemetery and supply of wooden headboards, laundry facility, operating room, and a chapel.

Chapter 2: Supply Charts

Each general hospital is supplied with everything it needs to operate. When additional items are needed, your hospital steward should fill out a requisition form. Supplies often run low.

You can apply for help from one of the civilian organizations, such as the United States Sanitary Commission. The men and women from this organization provide needed supplies and services above and beyond what the army can supply.

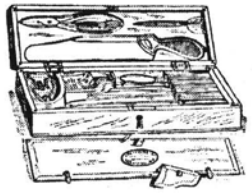
Even with this extra help, however, the atmosphere at the hospital is often discouraging. A good staff *must* maintain the high spirits of the patients.

	HOSPITAL SUPPLY CHART
Medicines	chloroform for anesthesia and morphine for pain and all others
Instruments	for surgery, including stomach pumps, teeth extractors and tourniquets
Food & ingredients	for general health and remedies like tea, whiskey, ginger and cloves
Books	medical dictionary, chemistry book, prescription journal and meteorological text
Bedding	mattresses, sheets, pillow cases and mosquito bars
Dressings	bandages, lint and cotton wadding
Furniture	including ink-stands, coffee mills, and bed pans
Tools	such as hatchets and razors

* taken from Regulations for the Army of the United States, 1861

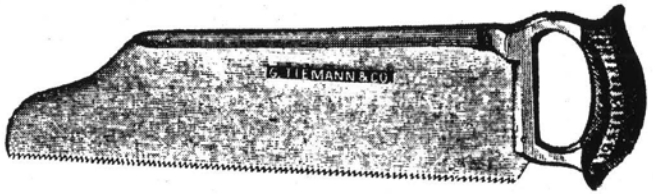
Chapter 3: Surgical Instruments and Common Surgeries

Surgery should be out in the open, since the light is best there and there is plenty of fresh air. Anesthesia should be used when available, and the surgeon should have at least one attending assistant.



If time, wipe off your instruments between surgeries. Refer to the medical journals supplied if you come across a new type of wound that requires complicated surgery.

Almost all (94 out of every 100) wounds suffered in this war are from bullets, or Minie balls. The first step, then, in the treatment of a gunshot wound is to find the bullet, and examine how much damage it caused to the bone and tissue. This procedure calls for the use of the bullet probe, but more often that not the surgeon uses his own index finger to find the bullet.



Amputation is our most common surgery – at the current rate there could be more than 30,000 cases reported in the Union army alone – because of the way in which the Minie balls tear up the tissue and shatter the limb bones.

Amputation of a limb can take as little as five minutes, and piles of limbs are to be buried together in one mass trench grave on the hospital grounds. Although soldiers sometimes refer to you and your fellow surgeons as "butchers", we know that amputation is a necessary means to saving the lives of many soldiers.

Resection is another option for this type of wound, and involves removing the portion of the limb containing the shattered bone. Needless to say, the patient will have very limited function of that limb after the surgery. Resection takes longer to perform than amputation, and therefore the risk for wound irritation is greater.

A soldier who has a head wound may have to undergo a trephining procedure. This procedure involves making a large hole in the skull to reach inside and remove bullets, bullet fragments or pieces of bone. Even if this surgery is successful, the patient often has severe complications from the wound, such as seizures.

Ligation, or the tying off of bleeding arteries, is another common surgical procedure that you will be called upon to perform during your army service. The procedure of finding and tying a bleeding vessel, however, is one of the most difficult. Finding and then exposing the right vessel in time to control the bleeding requires speed, accuracy and a great knowledge of the entire system of blood vessels.

Chapter 4: Medical Inspection

So that we can make sure that your hospital is run in a most efficient manner, there will be a periodic inspection of the facility. During this time, your Medical Inspector or Commissioner will tour all areas of the hospital and present a report to the Surgeon-in-Charge.

Below is a copy of the form that the Medical Inspector will use. He will place in each box the letter "G" for Good, the letter "F" for Fair, and the letter "B" for bad.

Report of the Medical Inspector:

DATE:	Quarters	Cooking	Water	Drainage
REMARKS:				
DATE:	Latrine	Ventilation--Warmth	Cleanliness of patients	Supplies
REMARKS:				

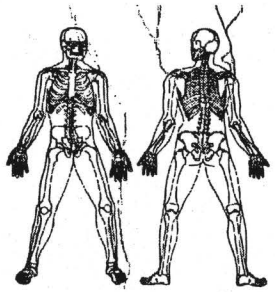
* taken from Regulations for the Army of the United States, 1861

Chapter 5: Reports and Record-Keeping
(including Certificates of Disability)

On the Certificate of Disability, the Surgeon must describe the disability, wound, or disease, the extent to which it deprives him (the soldier) of the use of any limb or faculty, or affects his health, strength, activity, constitution, or capacity to labor or earn his living.

When an enlisted man is *totally* disabled, on account of wound received, or sickness incurred, in the line of his duty, he is entitled to a pension of $96 per year ($8 per month).

When *partially* disabled, he is entitled to that part of this pension as deemed proper or for the amount of months as deemed proper, based on the extent to which the injury affects the soldier's capacity to work and earn his living.



When a soldier dies from a wound or disease contracted while in the army, his widow and children are entitled to apply for a pension by submitting proof that they were supported by the soldier's army pay.

Please pay close attention to detail when filling out these certificates, using as much information as possible and, where appropriate, providing diagrams of the injuries. Record-keeping is of utmost importance in the army.

Chapter 6: Records of Treatment

Below are some examples of treatment. Evaluate the treatment received by these men at the hospital, and have your medical team vote on whether or not his pension has been awarded in a fair amount. This will later help you to later work together in your hospital.

Case #1: George Deichler, 69th Pennsylvania Infantry, U.S.A.

George was 22 years old and employed as a machinist before the war. He lived with his father, Philip, in Lancaster, Pennsylvania. He was a corporal at the battle of Gettysburg where he received his first battle wound. . . a bullet to the left groin. It took several months for him to recover, but eventually George left the hospital and returned to his unit. In August of 1864 he was again wounded. . . shell fragment to the head and a bullet to the knee. He spent another six months recovering from this wound, but returned to his unit in March, 1865. Nine days after his return, he was wounded a third time. This time the bullet hit him in the lower part of the stomach and blew a hole out his back. He began receiving a pension in August of $17 a month.

Case #2: Ralph Rickaby, 69th Pennsylvania Infantry, U.S.A.

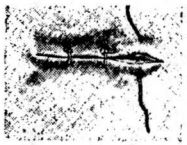
Ralph Rickaby was a 26 year old shoemaker. He married his sweetheart, Ellen Kavenaugh, two weeks after he volunteered to fight for the Union army. At the battle of Gettysburg, a minnie ball hit him in the base of the neck, traveled downward at an angle, and exited just to the left of his spinal column. His arm was partially paralyzed and his neck stiff, a disability for anyone let alone a shoemaker. In late August of 1864, he was discharged from the army and received a pension of $5.33 a month.

Case #3: Patrick Lester, 69th Pennsylvania Infantry, U.S.A.

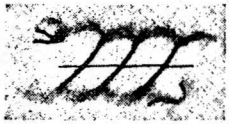
Patrick Lester was 29 years old when the war began, and married with three children. He was captured at the battle of Gettysburg and sent to live at Belle Isle Prison in Virginia. There he contracted chronic diarrhea, so they paroled him from the prison and sent him to a

hospital in Maryland. In October of 1863, one of the nurses there wrote a letter to his wife, letting her know that he was being sent home to recuperate so that he could be closer to his wife and children. His transport home to Philadelphia however was in the form of a medical furlough and when that furlough ran out, his condition had worsened. His wife asked for help.

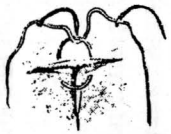
The Medical Director explained that Patrick would have to be transported to an army hospital or he would be marked as a deserter. He was moved to the U.S. General Hospital in Philadelphia where he died of chronic diarrhea on November 15, 1863. Ten days later, Jane Lester filed for a widow's pension, and was awarded the standard $8 a month for a private's wife.



INTERRUPTED SUTURE

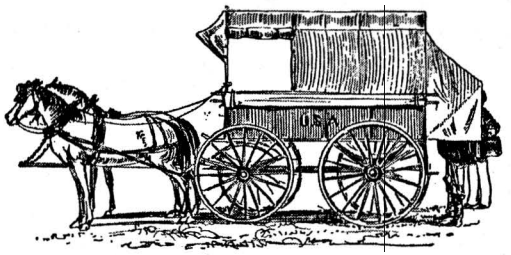


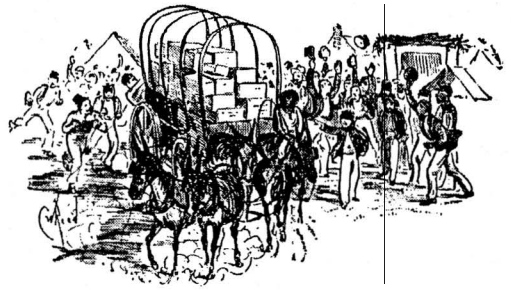
CONTINUOUS SUTURE



DOUBLE-NEEDLED SUTURE

CROSS SUTURE





ARMY OF THE UNITED STATES OF AMERICA

CERTIFICATE OF DISABILITY FOR DISCHARGE

_____ of Captain _____ Company, ( ) of the

_____ Regiment was enlisted on the _____ day of _____

186__ to serve _____ years; he was born in _____ in the State of _____

is _____ years of age, _____ feet _____ inches high, _____ complexion, _____eyes,

_____ hair, and by occupation when enlisted a _____. During the last two

months said soldier has been unfit for duty _____ days.

Statement of all facts known concerning disease or wound of said soldier:

STATION:
DATE:
Commanding Company _____

I certify, that I have carefully examined the said _____

of Captain _____'s Company, and find him incapable of performing the duties of a

soldier because of

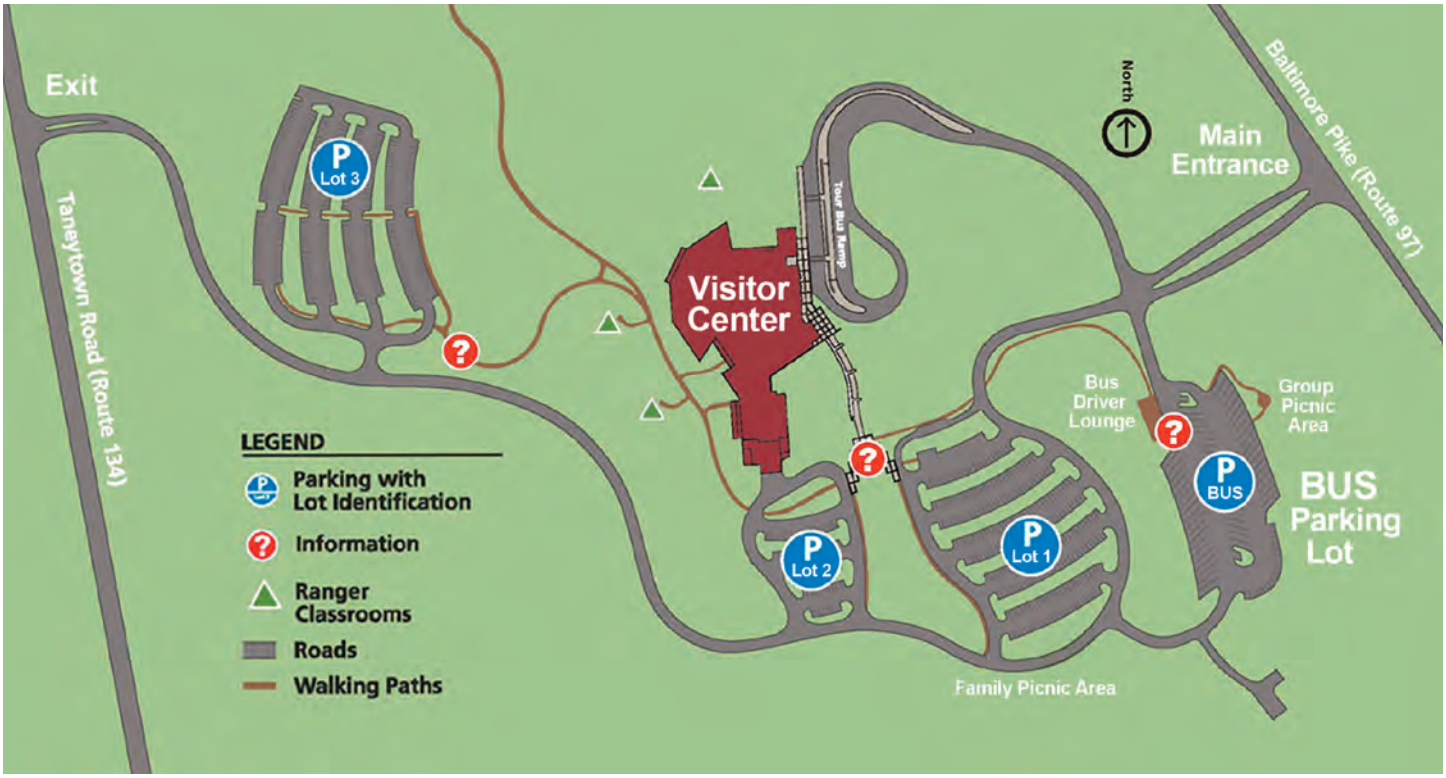
Surgeon-in-Charge _____

DISCHARGED, this _____ day of _____, 186__ at _____

Commanding the Post

NOTE – When a <u>probable</u> case for pension, <u>special care</u> must be taken to state the <u>degree</u> of disability.

Field Trip Day Procedures



If your students are participating in our program, please follow these directions:

1. Report to the **Bus Parking Lot at the Gettysburg National Military Park Visitor Center, 1195 Baltimore Pike,** on or before the scheduled time, with your bus or vehicle and all students ready to go.

2. Your program ranger will meet you there, and ride on the bus with you to the program starting point. Your bus is necessary in the transport of your students to the program site. Any further directions necessary will be given to the bus driver by the student program ranger at this meeting point.

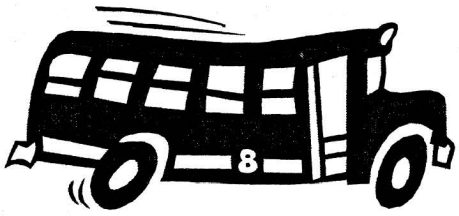
3. Have the students remain on the bus at this time, and remind them that once they arrive at the program site they should keep all unnecessary personal items on the bus (hats, cameras, lunch etc.) so that they are free to actively participate.

4. If the weather appears bad and you are enroute, contact the Education office at (717) 338-4422. An indoor program (possibly abbreviated, however) will be offered if we cannot stay outside.

TO GET THE FULL BENEFITS OF THE PROGRAM, IT IS IMPORTANT TO ARRIVE ON OR BEFORE YOUR SCHEDULED STARTING TIME. RANGERS RESERVE THE RIGHT TO CANCEL PROGRAMS OF GROUPS ARRIVING MORE THAN 15 MINUTES LATE!

WARNING!!! We would like to remind those participating in our student programs, that they are designed to take place outside in the natural environment. The weather therefore will play a great factor in the comfort of the students. Be prepared, as the students could be subjected to heat, cold, rain, winds, muddy fields and trails, as well as ticks and stinging insects for extended periods of time. Proper clothing and preparation is a must.

Field Trip Day



"It seemed as if a furious hurricane had passed over our town, sweeping with destructive violence everything before it," one Gettysburg resident wrote. Indeed the storm of battle did pass over the town, forever changing its landscape, and afterwards more than 20,000 wounded men were crammed into churches, and schools, and homes, and barns.

On your field trip day, you will visit one of the farmsteads of Gettysburg and, using your knowledge of Civil War medical care, recreate scenes as they might have been in 1863, including:

Sick Call in a Civil War camp;
Are your classroom diagnoses correct? You will learn more about the ailments of Civil War soldiers, and the common treatments administered by the doctors. Your ranger will share some of the most interesting cases and statistics of the War, and compare modern day treatment of the same illnesses.

Triage at a field hospital;
How did the Medical Corp prepare to receive the wounded? You will be able to answer that question as you assemble a makeshift operating table, rig up a tent for surgeries, plant the hospital flag, and transport a classmate on a stretcher. You will also see and hold reproductions of the artillery projectiles that caused some of the damage (such as a shot, shell and cannister ball), assess the wounds, and place the "soldiers" in order of treatment.

Surgery at a general hospital.
Why was amputation the most common surgery during the war, and what was the process of amputation? Three students will demonstrate their skill as assistant surgeons, and help the ranger administer anesthesia and "remove" the limb of a patient. You will see a capital saw, tenaculum, bone file, bullet probe and forceps among other surgical instruments.

Then you will see photographs of Camp Letterman, a tented general hospital established in Gettysburg to care for the wounded not yet well enough to travel, and learn about some of the life-long effects of wounds on Gettysburg battle veterans and their families.

At the end of your field trip day, your class will have a greater understanding of the "furious hurricane" that swept through the town, and you will feel good about the tribute that you have paid to the men and women involved in Civil War medical care. After your intense study and service as a member of the United States Medical Corps, your park ranger may reward each of you with a "medal" of honor for service to your country (National Park Service).

We'll see you at the park!

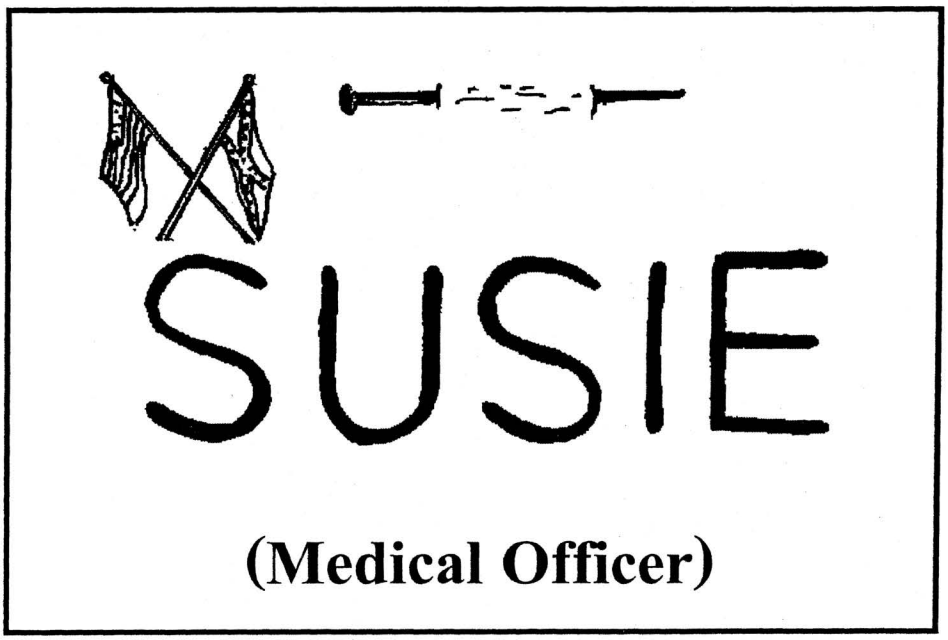
NAME TAGS

PURPOSE: To enable the student program rangers to be more personal with the students in your class.

MATERIALS: Scissors, paper, crayons or marking pens, safety pins or other attaching device.

PROCEDURE: Have the students make name tags which can be pinned or otherwise attached to their jackets. They should be large enough to be seen at a distance and clearly printed. The students' first names will be sufficient. You may also want to include the students' medical identities in smaller print on the name tags.

A prototype is pictured below.



Suggested Post-Visit Activities

Assign students to read a journal account or reminiscence of someone who actually took care of wounded soldiers during or after battle, such as Louisa May Alcott's account as a nurse, a poem by Walt Whitman, or a book about Gettysburg civilian, Tillie Pierce. Have students complete journal entries based on *their* experience of "treating the wounded" at Gettysburg.

Provide medical books and journals on modern amputation or other surgical procedures, and ask students to compare the surgery of today with the Civil War version. Better yet, have an operating room doctor or nurse visit your classroom to explain (simply) the changes in procedure and instrumentation.

Visit a local hospital, or have an emergency room doctor or nurse visit the classroom to explain first aid treatment and emergency triage of today.

Have students write letters as though they were the surgeons writing home to a wife or loved one about a wound, its treatment and consequences. What might you say to make the news a bit easier to take? Will you be completely honest about the condition of the soldier? How many of these letters will you write in one week?

Have students prepare a written or oral report on a famous Civil War medical attendent. Some suggestions include Clara Barton, Mary Walker, Walt Whitman, Louisa May Alcott, and Dr. Jonathon Lettermen.

Suggest a medical instrument or device as mentioned in the medical timeline -- stethoscope, x-ray machine, thermometer, surgical gloves etc. Have students research and prepare a report on one of them, answering the following questions: Was the instrument around during the Civil War? If not, how might it have helped? If so, did it help?

Ask students to create a chart comparing the transport and treatment of wounded during the Civil War with that of World War II or Vietnam. How have the changes in the technology of war brought about changes in the technology of transport and treatment? How are wounded evacuated and treated from disasters today?

*Redistribute the medical identities from the field trip, and have your students write down everything they remember about the role of the new identity. For example, a student who had been assigned to be the First Aid Officer may see things differently as a wounded soldier begging for treatment.

Reading List for Teachers and Students

At Gettysburg , or What a Girl Saw and Heard of the Battle; 1889; Pierce, Tillie A.; interesting first-hand account of the battle as witnessed by the author when she was a young girl; grades 4 – 12.

Civil War Medicine: An Illustrated History; 1998; Schaadt, Mark J.; Cedarwood Publishing; collection of photographs and illustrations ranging from stretchers and ambulances to various types of medical instruments, incisions and procedures; grades 5 – 12 with teacher instruction.

Civil War Medicine: Challenges and Triumphs; 2002; Bollet, Alfred J.; Galena Press; in-depth study of the progress of medicine throughout the war, including appendices with timeline, expenditures and death statistics; grades 11 – 12 and teacher reference.

Clara Barton: Angel of the Battlefield; 1982; Bains, Rae; biography of perhaps the most famous nurse during the Civil War; grades 4 – 12.

Days of "Uncertainty and Dread": The Ordeal Endured by the Citizens of Gettysburg; 1997; Bennett, Gerald R.; chronicles of the people and places of Gettysburg before, during and after the battle; grades 9 – 12.

Doctors in Blue: The Medical History of the Union Army in the Civil War; 1952; Adams, George W.; Press of Morningside; straightforward, readable account, with small photo section, of Union Army Medical Corps including chapters on wartime surgery and army sanitation; grades 8 – 12 and teachers.

Doctors in Gray: The Confederate Medical Service; 1957; Cunningham, H.H.; LSU Press; history/appraisal of Confederate Army Medical Corps, including chapter on prison hospitals; grades 8 – 12 and teachers.

Firestorm at Gettysburg: Civilian Voices, June – November 1863; 1998; Slade, Jim and John Alexander; chronicles the experiences of Gettysburg residents before, during and after the battle; plenty of photographs and first-person accounts; teachers and grades 7 – 12.

Hospital Sketches: An Army Nurse's True Account of Her Civil War Experiences; 1869; Alcott, Louisa M.; personal account of the author's brief experience as a nurse during the Civil War; grades 8 – 12.

The Image of War: 1861 – 1865; 1981, The National Historical Society; 6 volumes dealing with the war from its origins through its aftermath using extensive photographic approach; grades 5 – 12.

In Hospital and Camp: The Civil War Through the Eyes of Its Doctors and Nurses; 1993; Straubing, Harold E.; accomplishments and hardships of the medical profession as described during the Civil War; grades 8 – 12.

Pictorial Encyclopedia of Civil War Medical Instruments and Equipment; 1983; Dammann, Gordon; 3 volumes of photographs dealing with surgical procedures, diseases, medical uniforms and leaders, with solid explanatory text; grades 5 through 12 with teacher instruction.

A Strange and Blighted Land; 1995; Coco, Gregory A.; Thomas Publications; descriptions of what happened to the wounded, the dead and the captured in the words of the people who were there; graphic photographs; grades 9 – 12 and teacher reference.

A Vast Sea of Misery: A History and Guide to the Union and Confederate Field Hospitals at Gettysburg, July 1 to November 20, 1863; 1988; Coco, Gregory A.; Thomas Publications; photographs and short histories of buildings used as field hospitals complete with descriptions of those who were there; teacher reference.