

Lesson Plan Series



THE SIXTEENTH ARNY CORPS FORDING THE CHATTAHOOCHEE AT ROSWELL'S PERRY, JULY 1078, 1864. From a Samuel by Gomme B. Nathan, Strong low, by a branter.

Overview

In 1864, during the Civil War, General William T. Sherman crossed the Chattahoochee and ordered his troops to burn the mills, therefore weakening the South's development. Because a number of the mills were making uniforms and supplies for the Confederate soldiers, their destruction was a hard hit to parts of the southern troops. Following the Civil War, however, many of the mills were rebuilt and their ruins can still be seen along the river today.

Objectives

Students will understand:

- The causes, major events, and consequences of the Civil War
- The effects of war on the North and South
- What happened during the Atlanta Campaign
- How to use ideas of system, model, change, and scale in exploring scientific and technological matters

Georgia Performance Standards

SS₅H₁ The student will explain the causes, major events, and consequences of the Civil War.

c. Identify major battles and campaigns: Fort Sumter, Gettysburg, the Atlanta Campaign, Sherman's March to the Sea, and Appomattox Court House.

e. Describe the effects of war on the North and South.

SS5G2 The student will explain the reasons for the spatial patterns of economic activities.

a. Explain how factors such as population, transportation, and resources influenced industrial location in the United States between the end of the Civil War and 1900.

b. Locate primary agricultural and industrial locations since the turn of the 20th century and explain how factors such as population, transportation, and resources have influenced these areas.

S5CS4. Students will use ideas of system, model, change, and scale in exploring scientific and technological matters.

a. Observe and describe how parts influence one another in things with many parts.

b. Use geometric figures, number sequences, graphs, diagrams, sketches, number lines, maps, and stories to represent corresponding features of objects, events, and processes in the real world. Identify ways in which the representations do not match their original counterparts.

c. Identify patterns of change in things—such as steady, repetitive, or irregular change—using records, tables, or graphs of measurements where appropriate.

d. Identify the biggest and the smallest possible values of something.

Background

During the 1800s, the Chattahoochee River witnessed a large amount of industrial growth along its banks. Mills were built and used water power to make items such as cotton, wool, paper, tenting, roping, flannels, and yarn. Many of these goods were sent to the main railroad line in Atlanta, where they could be shipped to other parts of the country. The mills were an important part of Atlanta's industry, and the river was an important part in keeping the mills running.

In 1864, during the Civil War, General William T. Sherman crossed the Chattahoochee River and ordered his troops to burn the mills, therefore weakening the South's development. Because a number of the mills were making uniforms and supplies for the Confederate soldiers, their destruction was a hard hit to parts of the southern troops. Following the Civil War, however, many of the mills were rebuilt and their ruins can still be seen along the river today.

Two industrially important mills along the Chattahoochee River were the Marietta Paper Mill at Sope Creek and the Ivy Woolen Mill at the mouth of Vickery Creek. Let's take a closer look at each of these mills and see how they were run back in the 1800s.



This is an example of a caption ("Caption" in the styles menu) and should be placed in this side margin when taking up the two text columns, as shown here. The top of the text should align with the top edge of the photo box.

Procedure

Pre-visit

Introduce the lesson with a guided student analysis of the drawing entitled *The Sixteenth Army Corps Fording the Chattahoochee at Roswell's Ferry*, *July 19th*, 1864.

- Share first impressions
- Look more closely describing who is in the image and what is happening
- Identify the types of objects they see
- Think further about what the image suggests
- Ask the students to reflect on the picture and predict what happened previous and after the action in the picture.
- Have students use dates and pictures to create a time line of important events during the Civil War. Each group will have one date and have to illustrate. (example: http://www2.lhric.org/pocantico/civilwar/1860.htm)
- Explain to students that this lesson will focus on the Atlanta Campaign and what lead to the burning of the city of Atlanta
- http://research.archives.gov/description/524951

In every day life humans have 4 basic needs: food, water, shelter, clothing. During the 1860s obtaining these needs were different than today.

- Ask students to identify needs of a war and other things that a soldier fighting in the Civil War would need (arms, ammunition, other supplies)
- Why is it important for soldiers to be continually supplied?
- What might happen if they were not well supplied?

Transportation Methods of the day.

- In the days before modern roads, bridges, and automobiles, what role would railroads have in the transportation of such supplies and the movement of troops themselves?
- Where do manufactured goods come from?
- Where are factories located?
- Why are factories located in cities?

If you were a military commander during the Civil War, why and in what ways would you be concerned about railroad lines Students will review railroad lines map and work in pairs to answer the following questions:

- Why would it have been important for the Union army to capture Chattanooga first?
- What problems would this have caused for the Confederates attempting to defend Atlanta?
- After the city of Atlanta fell to Union forces, what difficulties would have been created for the Confederacy?

Explain to students that the picture they saw earlier was after the battle of Chattanooga and 2 other battles and was in preparation to storm Atlanta. Inform the students that they will be going on a field trip to explore this area and learn more about the Atlanta Campaign. Leave students with a reading of *Atlanta Area*.

On-site Visit

Conduct Interpretive Tour

- Tour various sites and record on graphic organizer ways that you would be feeling if you were one of the following characters:
 - * Confederate Soldier-defending Atlanta
 - * Slave
 - * Civilian-mill worker, farmer
 - * Union Soldier-Attacking Atlanta
- Complete the Wagon Wheel Activity

Post-visit

Discuss Atlanta Campaign

Eyewitness Report from different perspectives

- Discuss what an Eyewitness Report is
- Read "Memories of a Teenage Girl"
- Write Eyewitness Reports using Rubric as a guide
- Share with classmates

Materials

- Illustration
- Maps
- Math problems
- Graphic Organizer
- Vickery Creek Guide
- Sope Creek Guide
- Memories of a Teenage Girl
- Rubric
- Waterwheel Science Connection Materials

Additional Resources

http://www.heritagesandysprings.org/Sandy-Springs-History/civil-war.html

http://www.history.com/topics/atlanta-campaign

http://www.kennesaw.edu/civilwarera/lessonplans/6-8/sherman_railroads.pdf

http://www.nps.gov/history/history/online_books/civil_war_series/7/sec6. htm

CIVIL WAR MATH - batchelk@hsd.k12.or.us

http://www.technologystudent.com/energy1/wtrwhl1.htm

Sope Creek Manufacturing Complex by Everett E. Bronski, Jr. Georgia Institute of Technology

March 10, 1978

http://www.eyewitnesstohistory.com/gtburg.htm

http://www.atlantahistorycenter.com/cms/Hardtack+Recipe/460.html

Water Wheel Science Connection

Georgia's Piedmont topography drops from 1,600 to 600 feet above sea level. Many narrow stream and river valleys descend rapidly down the valleys. Water confined by these valleys turned the wheels of mills. In the early days water wheels captured the flow (weight of the water) and force (height of the water's drop) of many streams and rivers.



UNDERSHOT SYSTEM - 30% EFFICIENT

Water has been used to power industry for hundreds years. The example below shows a water wheel being driven round by a river / stream. As the water wheel turns, a shaft running through its center would be used to power machines through a range of pulleys. This was the main form of power during the early years of the Industrial Revolution.

Water wheels were the fore-runner of our modern day water driven electrical turbines. To increase the power provided by water a dam is added. This is seen in the diagram below. The dam allows a 'head' of water to build up. The water can be release when power is needed to drive machines inside the



building/factory.

This system provides more power because:

A powerful 'head' of water is built up behind the dam.

When the water is released, it is directed to the top of the water wheel. The wheel spins faster because gravity aids the falling water, pushing the wheel round at a higher speed.

Another advantage of this type of system is that even during dry periods, water can be allowed to slowly build up behind the dam. It can then be used to power machines. In dry periods a river or stream may be shallow and flow slowly. However, the dam allows water to be stored until there is enough to drive the machines inside the building.

Interpretive Guide for Vickery Creek Mills

Vickery Creek is a tributary of the Chattahoochee River.

Social Studies

Steep bluffs of rock create a rugged and varied terrain that gives Vickery Creek uniqueness in scenic beauty rarely found in the Metropolitan Atlanta Area.

These Cherokee lands and the powerful waters of Vickery Creek gave Roswell King the vision to build a town with textile mills in the 1830's.

Georgia's southern plantations were fueling a fledgling cotton industry from 1790-1810. At this time, many cotton mills were located in Rhode Island. This is because Boston was a financial center, but when the Embargo of 1808 and the War of 1812 bottled up the Boston Harbor, wealthy textile mill owners looked for places to relocate.

In the 1830s through 1882, a geological boundary called the Georgia fault line where land drops from the hills of the piedmont to the coastal plains was found useful for the mill industry. Factories began to emerge.

Roswell King, from Darien, Georgia, along the coast of Georgia, was taking a trip to investigate gold discoveries in the North of Georgia when he accidently discovered Vickery Creek. The creek waters were rushing and he came up with his idea for a mill. He obtained the land, offered home sites to friends and business associates and began construction of his mills.



With the help of slaves, Roswell's son Barrington settled the area north of the Chattahoochee for the Roswell Manufacturing Company. The city of Roswell was named after King. The Roswell Manufacturing Company opened two mills and two dams by 1864.

By 1840, Georgia ranked third in the nation in production of cotton cloth and the Roswell Mills were very successful.

In 1857, James R. King and Thomas E. King established the Ivy Mills which was not part of the Roswell manufacturing company.

As the Civil War began, The Ivy Mills began making Roswell Gray for Confederate Uniforms. The cloth was valued and as it became scarce it was reserved only for the officers.

According to the Heritage Center at Roswell's Visitors Bureau, The Southern Confederacy wrote on June 19, 1864,

"This factory is of immense value to our Government and is operating chiefly for its benefit and the natural advantage surrounding will enable our forces to hold it against overwhelming numbers, should the enemy attempt to raid upon the place. We have sufficient artillery to command every approach, and the heights will be well fortified. "



On July 5, 1864, the Union soldiers arrived in Roswell to discover that the covered bridge had been burned by the Confederates to stop the advance, but they found the Roswell Mills still operating. An Ivy Mill employee had placed a French flag above the woolen mill to try and deceive the Union army and claim it was not a Confederate mill. The Union Army discovered that the woolen mill was not French and was producing Confederate supplies. Upon this discovery, Sherman ordered the two Roswell Manufacturing Mills burned along with the Ivy Mills.

Sherman had said, "I would make this war as severe as possible, and show no symptoms of tiring till the South begs for mercy." To continue to break the South's spirit, Sherman ordered all people, male or female, associated with the mill to be arrested and sent to the North. The female workers were charged with treason and imprisoned but were never tried. Once released, they were offered no assistance or supplies to return to the South.

Ruins of the Roswell Cotton Mills and mill dam can be experienced as you travel along the trail system. The historic mill dam was constructed by Roswell King's son, Barrington, about 1860.

Roswell Mills Math Warm-up

Imagine that it takes approximately 45 seconds for the Union army to march 100 yards. If the Roswell Woolen Cotton Mills is 2100 yards away, how many minutes will the Union Army take to reach the mill to remove the women and children?

Complete this math problem to earn your Woman at War Trading Card.

Different Perspectives

How would each one of the following people involved in the Atlanta Campaign perceive the events around them? Include historical facts to justify your reasons. Use the space below to record your impressions while visiting the Roswell Mills.



Interpretive Guide for Sope Creek

Sope Creek is a tributary of the Chattahoochee River.

Social Studies

The beauty and serenity of Sope Creek with its scenic rock outcrops, rapids , ruins of the mills and lush flora made it a popular picnic spot since the 1930s.

Sope Creek was at one time part of the vast Cherokee Nation. The Chattahoochee River served as a divider between the Creek Indian Nation and the Cherokee Nation. The land on each side of the river was a buffer between the two nations, so there is no Indian village located in the area but artifacts indicate some outcroppings possibly used for hunting and fishing trips. There is evidence that Spanish explorer Hernando DeSoto visited this area in 1540 searching for gold. Sope Creek was named for a Cherokee Native American named Old Sope.

It is rumored that the first commercial venture in Sope Creek was a brandy distillery. The business men that started the distillery eventually worked to help develop the paper mill. The gorge located at the creek is ideal for creating water power. The area was also considered lucrative because of the W & A Railroad which could facilitate the movement of products. In addition, the South's population was increasing and there was a higher demand for supplies. A Yankee named Byrd and his associates were the founders. The Marietta Paper Mill Company was incorporated on December 19, 1859 making stationary, news print, wrapping paper and stock on which Confederate currency and bonds were printed. The finished products were hauled by mule to Marietta.

Two mills were built. Mill No. 1 on the south side of the bridge was where paper was ground to a pulp and wrapping paper was manufactured. On the east side of the creek was Mill No. 2. It was divided into 5 sections. The first room was the sorting room, the second was the attached to a platform where rags were unloaded, the third was a rag-cutting room, pulp was ground in the fourth room and the fifth room held the machinery where the paper was actually produced. There was an oil room on the south side of the creek and a boiler room just above Mill No. 2.

Sherman march from Chattanooga to Atlanta followed the W & A Railroad. This route carried the Union forces through Marietta.

Union General Garrad's Calvary found the Sope Creek Mills. He was on a search and destroy mission and had just destroyed the Roswell Mills. On July 5th, Garrad sent a regiment to Sope Creek to destroy the mills.

The Union forces prepared to cross the Chattahoochee in two ways to get to Atlanta. Garrad suggested a place to cross the river near Sope Creek. Sherman wanted to avoid a major battle in crossing the Chattahoochee River. The Sope Creek area was lightly defended. At Daylight on July 8, the Union army marched from Smyrna to Sope Creek. Flat bottom boats were carried down the steep banks and launched under cover of artillery fire. There were only a few Confederate soldiers and they were caught off guard. There was little resistance. The Confederate became worried about this advance realizing that the Union Army would be

advancing towards Atlanta through Peachtree Creek. The Confederate General Johnston considered surrendering Atlanta, but President Jefferson Davis was not prepared to let Atlanta go without a fight. Davis replaces Johnston with John B. Hood which led to disorganization and confusion. The crossing of Sope Creek was significant in taking Atlanta. Union troops crossed the Chattahoochee without incident. They outflanked the Confederate forces and prompted a major shakeup in the Confederate chain-ofcommand.

The mill was burned by Union troops in 1864 and rebuilt after the war. The mill burned again in 1870 and was rebuilt in 1871. In 1874 it became the Marietta Paper Manufacturing Company and added twine and books to its products. The mill operated until 1902 when the development of electric engines made hydro power obsolete.

Marietta Paper Mill Math Warm-up

If the average Union soldier ate a ½ pint of beans, 6 ounces of salted pork, and two hard tack biscuits every meal, two meals a day. Use the charts at the bottom of the page to solve the problems.

A. How many pounds of salted pork would you need to feed one regiment of soldiers a day?

B. How many pounds of beans did two Brigades eat in a day?

C. How many hard tack biscuits were eaten in a day by one division?

D. How long would it take a Corps to eat 2,880,000 biscuits?

There are: 1000 men in a Regiment 2 Regiments in a Brigade 4 Brigades in a Division 3 Divisions in a Corps 16 oz. in a pint 16 oz. in a pound

Different Perspectives

How would each one of the following people involved in the Atlanta Campaign perceive the events around them? Include historical facts to justify your reasons. Use the space below to record your impressions while visiting the Marietta Paper Mill.



Memories of a Teenage Girl.



Tillie Pierce was born in 1848 and when the battle began, had lived all her life in the village of Gettysburg, Pennsylvania. Her father made his living as a butcher and the family lived above his shop in the heart of town. Tillie witnessed the entire battle and published her observations twenty-six years after the event.

Tillie attended the "Young Ladies Seminary" a finishing school near her home. She was attending school on June 26 when the cry "the Rebels are coming!" reverberated through the town's sleepy streets:

"We were having our literary exercises on Friday afternoon, at our Seminary, when the cry reached our ears. Rushing to the door, and standing on the front portico we beheld in the direction of the Theological Seminary, a dark, dense mass, moving toward town. Our teacher, Mrs. Eyster, at once said:

'Children, run home as quickly as you can.'

"It did not require repeating. I am satisfied some of the girls did not reach their homes before the Rebels were in the streets.

"As for myself, I had scarcely reached the front door, when, on looking up the street, I saw some of the men on horseback. I scrambled in, slammed shut the door, and hastening to the sitting room, peeped out between the shutters.

"What a horrible sight! There they were, human beings! Clad almost in rags, covered with dust, riding wildly, pell-mell down the hill toward our home! Shouting, yelling most unearthly, cursing, brandishing their revolvers, and firing right and left. "I was fully persuaded that the Rebels had actually come at last. What they would do with us was a fearful question to my young mind.

"Soon the town was filled with infantry, and then the searching and ransacking began in earnest.

"They wanted horses, clothing, anything and almost everything they could conveniently carry away.

"Nor were they particular about asking. Whatever suited them they took. They did, however, make a formal demand of the town authorities, for a large supply of flour, meat, groceries, shoes, hats and (doubtless, not least in their estimations), ten barrels of whisky; or, in lieu of this five thousand dollars.

"But our merchants and bankers had too often heard of their coming, and had already shipped their wealth to places of safety. Thus it was, that a few days after, the citizens of York were compelled to make up our proportion of the Rebel requisition."





Atlanta Area

From Kennesaw Johnston withdrew to a fortified line covering the railroad on the northwest bank of the Chattahoochee. Knowing that a direct attack on this position merely would repeat the Kennesaw slaughter, Sherman outflanked it by sending detachments across the Chattahoochee at Isham's Ford and Roswell. Johnston, who had expected Sherman to attempt to turn his left rather than right flank, thereupon retreated on the night of July 9 to the other side of the Chattahoochee and within a few miles of Atlanta. Sherman, wishing to rest and resupply his troops before entering into what he believed would be the final phase of the campaign, made no attempt to follow with his full force until July 17. On that very same day Confederate President Jefferson Davis, having decided that Johnston could not be trusted to make a determined effort to hold Atlanta, replaced him as commander with Hood.



Requirements:

Civil War along the Chattahoochee River

Eyewitness Report rubric

1. Write a firsthand account that has personal or historical significance	5 pts.
2. Writer's purpose is to inform	5 pts.
3. The writer sets the scene by re-creating the events and telling: What? Who? Where? When? Why? How?	10 pts.
4. Writer uses precise language and sensory details and images to create a vivid picture	10 pts.
5. Writer presents events in a clear, logical order, report is organized	10 pts.
6. Writer captures the MOOD of the event with specific details	10 pts.
7. Writer uses direct quotations	10 pts.
8. Proper use of grammar, mechanics, and usage.	10 pts.
9. Begins report by explaining significance of event	10 pts.
10. Comments throughout the report on what the experience means	10 pts.
11. Summarizes the personal significance of the experience in the conclusion Total: 1	10 pts. 1 00 pts.



National Park Service U.S. Department of the Interior

Site name set in 8/10 Frutiger 65 Bold Address set in 8/10 Frutiger 55 Roman or by using the style labeled "Mailing panelreturn address"

Cooperator name set in 8/10 Frutiger 65 Bold Address here. Cooperator logo aligns with top line of text as shown here.

> First Class Mail Postage and Fees **P A I D** City, State Permit No. xxx

EXPERIENCE YOUR AMERICATM