

Research Lesson Plan: Did the Cotton Gin promote the growth of slavery in the Deep South?

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Targeted Grade Level: 8th

Essential Question: Did the Cotton Gin promote the growth of slavery in the Deep South? How does technology impact the availability and price of goods and services in the movement west to the Mississippi?

Formative Assessment Prompts:

Instructional Chunk #1: Do machines that perform the work of a human decrease the need for human labor? Why or why not?

Instructional Chunk #2: "Why did slavery increase after the invention of the cotton gin?"

Instructional Chunk #3: Explain three ways in which technology impacts peoples way of life today

Standard Addressed:

Standard: History # 3: Students will interpret historical data.

Standard: Economics #1 Students will analyze how changes in technology, costs, and demand interact in competitive markets to determine or change the price of goods and services

Problematic Prior Knowledge (PPL) Addressed

- Economic influences on supply and demand
- Rise of the New England textile mills
- Graphing supply and demand
- Chart reading
- Interpreting topical maps
- Comparing and interpreting data

Activating Strategies: Divide the student into cooperative Pairs. Pass out the folk story of **John Henry** (Resource #9) along with **Man vs. Machines, Pros and Cons** (Resource #10). Once the students have evaluated the story and done their summaries, have them answer the following warm-up question. Students just respond to the question: **Do machines that perform the work of a human decrease the need for human labor? Why or why not?**

Key Vocabulary to preview

- Eli Whitney
- cotton gin

Teaching Strategies:

- Leveled Reading
- Strategic Grouping
- Scaffolding Questions
- Modeling
- Think-Pair-Share
- Independent Work

Graphic Organizer(s) Used:

- ~~Man Vs. Machine T-Chart (Resource #10) (Removed Later)~~
- Organizational Chart for Writing Prompt (Resource #8)

Materials Needed:

Literature Selections: *Creating America; A History of the United States*; America's History Makers, pp 43-44

Additional Resources: Packet materials – News article, Tobacco growing areas and slavery, Slavery chart, Cotton and Slavery Map, and Cotton production table (Resources 3-9) .

Copies of the Eli Whitney Biography attach (easy reading, Resource #3), or the biography listed above (grade level)

Rubric (Resource # 1)

Writing Prompt (Resource #8)

Websites: www.eh.net/encyclopedia/article/phillips.cottongin
<http://fisher.lib.virginia.edu/collections/stats/histcensus/>

Differentiation Strategies:

- Leveled Readings
- Strategic Grouping
- Scaffolding Questions

Instructional Plan:

Instructional Chunk #1: Do machines that perform the work of a human decrease the need for human labor? Why or why not?

Procedures: Before Reading:

Activating Activity: Divide the student into cooperative Pairs. Then pass out the folk story of **John Henry** (Resource #9) along with **Man vs. Machines, Pros and Cons** (Resource #10).

Once the students have evaluated the story and done their summaries, have them answer the following warm-up question:

Do machines that perform the work of a human decrease the need for human labor? Why or why not?

Comment [bdc1]: Question duplicated from above.

1. **Debrief: ask the students...** To share their responses to the warm-up questions and elaborate on the why or why not.
2. **Check for Understanding/Summarizing Activity:** Have students revisit their initial response to the warm up after discussion

Instructional Chunk #2:

1. **Procedures:**

Document Based Activity:

1. Distribute packets to the students that contain the graphs and charts showing the rise of slavery in the south, the increase in the production of cotton, and the maps showing cotton growing regions and the regions of slave population. Give students about 10 minute to examine the documents and scaffolding questions. Be sure the scaffolding questions are ON the proper handout rather than a separate sheet.
 2. Distribute the writing Model 1 written document, 1 map, and 1 chart as a whole class
 3. Pair Share 2 or more documents
 4. Independently work on other documents and scaffolding questions
 5. **Debrief:** Discuss Responses to prompt, collect the papers at the end of the period.
2. **Check for Understanding/Summarizing Activity:** Writing Prompt

Comment [bdc2]: Needs clarification

Instructional Chunk #3:

1. **Procedures:**

After Reading:

- Exit Ticket:** Explain three ways in which technology impacts people's way of life today.
2. **Debrief: ask the students...** To share out responses before leaving
 3. **Check for Understanding/Summarizing Activity:** Exit Ticket Verbal Summary

Summarizing Strategy: Writing Prompt (Resource # 8)

Extension: A lesson on how the increase in cotton production may have influenced the Indian Removal Act and The "Trial of Tears" march to Oklahoma, during the Presidency of Andrew Jackson.

Resource # 1: **Assessment Rubric**

| | | | | Total |
|--------------------|--|---|---|-------|
| Introduction | Restates the question and whether it is true or false - 30 points | Restates the question or whether it is true or false - 20 points | No introduction - 0 points | |
| Supporting Details | 3 valid supporting details from the data - 45 points | Less than 3 valid supporting details from the data- 30 points | Supporting details not using the data - 15 points | |
| Conclusion | Conclusion restates the initial statement and supports it. - 30 points | Conclusion that does not restate the initial statement - 15 points | No Conclusion - 0 points | |

Resource #2: Story of Cotton Gin

Document A: The Story of the Cotton Gin

Excerpt 1:

The job (of cleaning cotton) was difficult and it could take a worker a whole day to remove the seeds from one pound of cotton fiber.

—Machinery had been used before: the Hindus and Chinese used something called a *churka*, while the Italians had a device called a *manganello*, but neither did the job satisfactorily. —Eli Whitney produced the first crude model of his gin in 1793—'gin' is short for 'engine'—his patent application was filed in June of that year and by the following March it had been granted.

At a stroke, the gin cleared the bottleneck that had developed between the cotton producers and the textile factories in Great Britain and New England. Compared with the pound-a-day limit of the manual worker; the gin could churn out one-and-a-half TONS of cleaned cotton a day.

The Cotton Gin was so simple to make that it was easily copied. Even though Whitney tried to block others from manufacturing the Gin he failed. By 1807 he had come to the conclusion the “an invention could be as valuable (to the people and producers) as to be worthless to its inventor”. He never profited from his invention.

Excerpt 2:

Eli Whitney (was challenged) to invent a machine to clean cotton of its seed. By spring the following year, Whitney had such a machine. He hoped to make a fortune by patenting his cotton gin. It made the cleaning task easier.

Eli Whitney's cotton gin had a huge effect on the new country. It made cotton the leading crop in the South. The cotton gin also boosted cotton manufacturing and the growth of mill towns in New England. Cotton became cheap and popular, as yearly production ballooned from just 2 million pounds (in 1793) to about 60 million pounds by 1805.

Resource # 3: Labor Saving Machinery Document B

WILLIAM LINCOLN, Jr. *Just. Peace.*

Labor Saving Machinery.

TO THE EDITORS OF THE NATIONAL INTELLIGENCER.

Your paper of the 13th January contains a statement, under the signature of E. in which the important invention of Whitney's cotton gin is greatly undervalued. It is there estimated to be equal in value to the labor of three thousand men. Your correspondent might much more correctly have estimated its value to be equivalent to the labor of *three hundred thousand men.*

There is now annually raised in the U. States, and cleaned with Mr. Whitney's machine, about *one hundred millions* of pounds of short staple cotton. To pick that quantity by hand, in the manner in which this species of cotton was separated from its seeds before his invention, would require the constant labor of three hundred and thirty thousand persons. The manual labor required to clean the above quantity of cotton with the aid of Whitney's gin, can now easily be performed by three hundred men, if constantly employed through the year. As a labor-saving machine, it is believed there is none, either of ancient or modern invention, which can be compared to it.—By the aid of this invaluable improvement, our southern states are increasing in wealth beyond all former example.

The benefits already derived from it to the United States, must greatly exceed *one hundred millions of dollars;* and to estimate its annual value, for the future, at ten millions of dollars, would be fixing it at a low rate.

However extraordinary the above statement may appear, it is nevertheless true. It is also a fact, as I am informed, which adds nothing to the honor of the United States, that Mr. Whitney himself has realised very little emolument from this invention.

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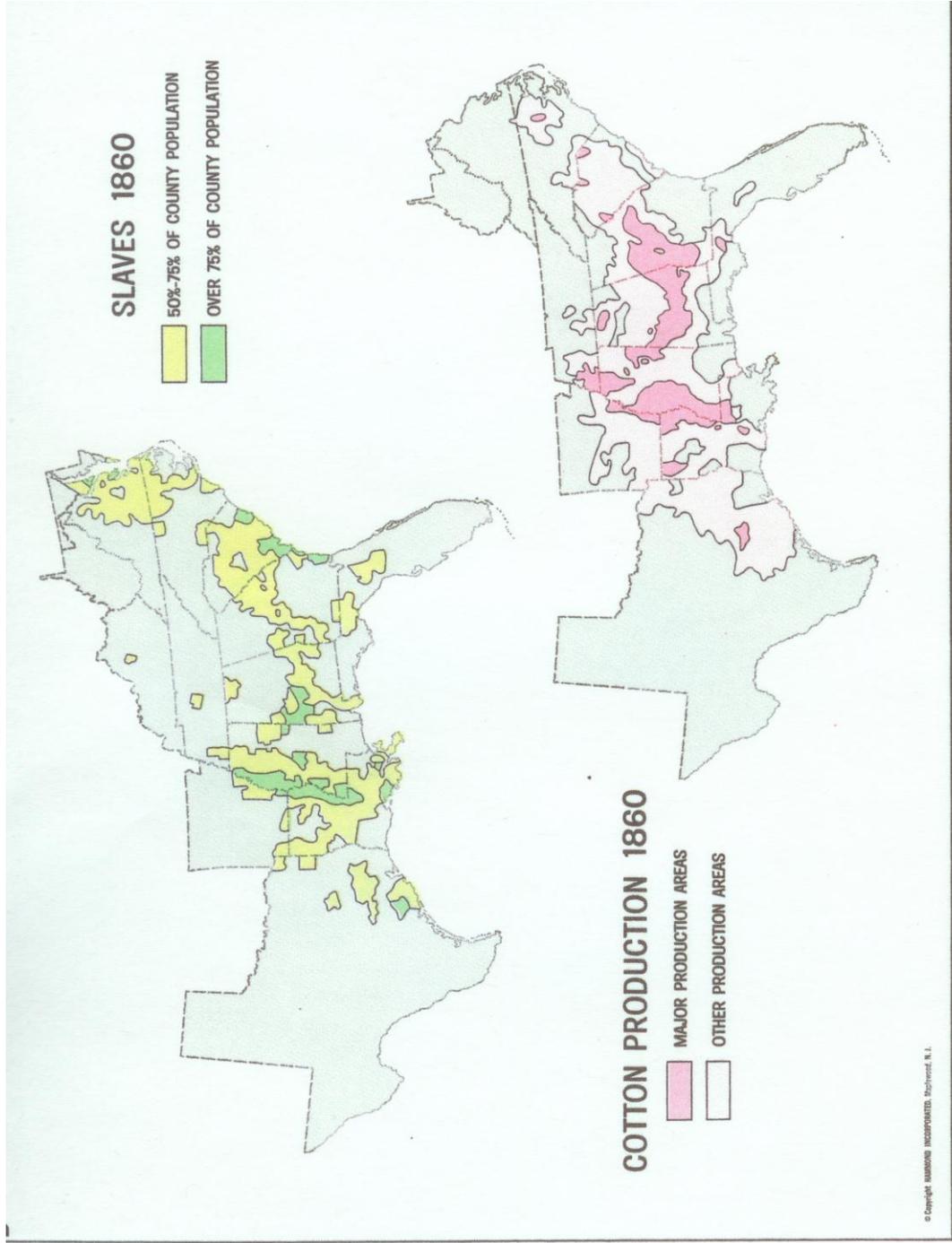
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Resource # 4: Slave Population and Tobacco **Document C**



According to the U.S. 1860 Census, one out of every four families in Virginia owned slaves. There were over 100 plantation owners who owned over 100 slaves.





Document E Resource #6: Cotton Production

Table 2

American Production of Raw Cotton, 1790-1860 (bales)

| Year | Production | Year | Production | Year | Production |
|-------------|-------------------|-------------|-------------------|-------------|-------------------|
| 1790 | 3,135 | 1815 | 208,986 | 1840 | 1,346,232 |
| 1795 | 16,719 | 1820 | 334,378 | 1845 | 1,804,223 |
| 1800 | 73,145 | 1825 | 532,915 | 1850 | 2,133,851 |
| 1805 | 146,290 | 1830 | 731,452 | 1855 | 3,217,417 |
| 1810 | 177,638 | 1835 | 1,060,711 | 1860 | 3,837,402 |

Document F: Graph on Slave and non-slaves states (still needs to be added)

Resource #7: Scaffolding Questions **Moved onto Individual handouts**

“At a stroke, the gin cleared the bottleneck that had developed in cotton production- compared with the half-a-pound per day limit of the manual worker; the gin could turn out one-and-a-half TONS of cleaned cotton.”

Scaffolding questions:

1. What was the effect of the cotton gin on the efficiency of cotton production?
2. What effect do you think this had on the number of slaves necessary to produce cotton?

“Eli Whitney’s cotton gin had a huge effect on the It made cotton the leading crop in the South...The cotton gin also boosted cotton manufacturing and the growth of Mill Towns in New England. Cotton became cheap and popular, as yearly production ballooned from just 2 million pounds to about 60 million pounds by 1805.”

1. What was the effect of the cotton gin on the efficiency of cotton production?
2. What was the effect of the cotton gin on textile production in the North?
3. What effect do you think this had on the number of slaves necessary to produce cotton?

Map Scaffolding Questions:

1. How does the concentration of slavery in the South in 1860 compared to that of cotton production in 1860?
2. What are the similarities and differences in the maps?
3. Given what you know about the cotton gin, does it appear as if cotton production increased or decreased the number of slaves in the South? Explain.

Table 2 Scaffolding Questions:

1. What happened to the production of cotton between the years of 1790 and 1860?
2. What effect do you think this increased production of cotton had on the number of slaves necessary to produce cotton?

Slave population to 1860

1. What does the graph tell you about the number of slaves required in cotton producing states compared to the number of slaves required in non-cotton states?
2. Do you think that this pattern is related to the development of the cotton gin? Why or Why not?

Resource #9: John Henry Reading

John Henry: The Steel Driving Man

A West Virginia Legend

retold by S.E. Schlosser

Now John Henry was a mighty man, yes sir. He was born a slave in the 1840's but was freed after the war. He went to work as a steel driver for the Chesapeake & Ohio Railroad, don't ya know. And John Henry was the strongest, the most powerful man working the rails.

John Henry, he would spend his day's drilling holes by hitting thick steel spikes into rocks with his faithful shaker crouching close to the hole, turning the drill after each mighty blow. There was no one who could match him, though many tried.

The new tunnels were filled with smoke and dust. Ya couldn't see no how and could hardly breathe. But John Henry, he worked tirelessly, drilling with a 14 pound hammer, and going 10 to 12 feet in one workday. No one else could match him.

Then one day a salesman came along to the camp. He had a steam powered drill and claimed it could out drill any man. Well, they set up a contest then and there between John Henry and that there drill. The foreman ran that newfangled steam drill. John Henry, he just pulled out two 20 pound hammers, one in each hand. They drilled and drilled, dust rising everywhere. The men were howling and cheering. At the end of 35 minutes, John Henry had drilled two seven foot holes—a total of fourteen feet, while the steam drill had only drilled one nine foot hole.

John Henry held up his hammers in triumph! The men shouted and cheered. The noise was so loud, it took a moment for the men to realize that John Henry was tottering. Exhausted, the mighty man crashed to the ground, the hammer's rolling from his grasp. The crowd went silent as the foreman rushed to his side. But it was too late. A blood vessel had burst in his brain. The greatest driller in the C&O Railroad was dead. Some folks say that John Henry's likeness

is carved right into the rock inside the Big Bend Tunnel. And if you walk to the edge of the blackness of the tunnel, sometimes you can hear the sound of two 20-pound hammers drilling their way to victory over the machine.

Resource #10: Man vs. Machine

Pros and Cons

After reading the story of John Henry, you and your partner will discuss the pros and cons of manual labor over technological advances using machines. Using these pros and cons, write a short summary of your conclusions explaining which you think is more effective Labor vs. Technology (machines).

Manual Labor

Machines

Pros

Cons

Pros

Cons

Summary:

Entire organizer added after revision.

Resource #11: Organizational Chart for Writing Prompt

Directions: Use the following chart to organize the evidence from the documents. When you find evidence in documents that proves the statement true or false, write the evidence under the correct column, and write which document letter had that evidence.

| <u>True</u> YES, slavery DID increase as a result of the invention of the cotton gin. | “Slavery increased as a result of the invention of the cotton gin.” | <u>False</u> NO, slavery increased as a result of other factors. |
|---|--|--|
| Evidence: | | Evidence: |
| Document Letter: | | Document Letter: |
| Evidence: | | Evidence: |
| Document Letter: | | Document Letter: |
| Evidence: | | Evidence: |
| Document Letter: | | Document Letter: |
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