

Understanding Industry and Change Using Textiles in Charlotte

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Introduction

It was the day of the big field trip to the Levine Museum of the New South in center city Charlotte, North Carolina. We had studied the present day Piedmont region in class, focusing on what people do for a living and the major industries of the most populated region in the state. I was enjoying watching my fourth grade students, as they explored the artifacts of each exhibit in the museum's five rooms. They marveled at the simplicity of the poor sharecropper's one-room home. They studied the cotton gin and especially liked comparing the touch of raw cotton, de-seeded cotton, and finally, cotton ready to be made into thread. They liked the model train that ran beside the model of a cotton farm. Some students wanted to get behind the display to see the train's mechanism and circular path. I turned the corner into the third room and saw a ten year old boy studying the reproduction of a cotton mill's spinning room. The mannequin of a similar age and sex was dusted in lint and working hard in front of large, loud, machines. My student was alone, lost in his thoughts and didn't realize I was behind him. I heard him say, "I wish I could work in a mill like that instead of going to school." It took me by surprise. He was a smart boy from a family expecting him to go to college. Then I thought, he has no idea how hard and monotonous this labor is, how long the hours are, and the pittance this child makes per week. I wished he would work that hard in school. Many of the students spend hours a day on video games at home. It's hard for them to understand where all these years of schooling will get them. But, I appreciated the boy's desire to do a physical job with such awesome machinery. It made me realize how romantically the students were viewing life in a cotton mill town. That thought was confirmed when we got to the early 1900s mill town kitchen. It was "so cool" and small, as they touched every old fashioned appliance and tool. At the diner in the next room, the hamburgers were only 20 cents! The children showed me an opportunity. I needed a unit where Charlotte's history from 1750 to the present is like the broad sweep of a wide paintbrush. Students would view change and understand industry through their own research and discovery.

Objectives

This unit is designed for 4th graders who study North Carolina in social studies. The activities could be adapted for 8th graders, who also study North Carolina or strategies could be used with the history of another state. Students are to develop an understanding of the concepts of industry and change. Adults can appreciate that “change is constant” based upon their knowledge of history and decades of life. Children may be more comfortable with change, having been raised in our fast-paced culture. But, they need a point of reference to understand the past so they can appreciate the present and strive to create improvements in the future. We will use their city, Charlotte, to investigate how the city developed over time. For each time period of Charlotte’s history, we will look at industry, transportation, and resources. Students will discover how key people, their education, ideas, and resources played a significant role in Charlotte’s growth as a major United States city and hub for international businesses. This unit will take 3-4 weeks to complete with 3-4 sessions a week. It is integrated in nature, involving nonfiction reading and research skills, various forms of writing, and information technology. To teach the history of our area, I want to use as many visuals as possible to engage the students. There is an interactive white board and three computers in the classroom. Students are not thrilled about reading from a social studies textbook, yet that is an easily accessible resource. Teaching the reading of non-fiction for comprehension is something they will be using in the years ahead, using a resource book or computer. Teaching the concepts of industry and change are the foundation of understanding a global economy. I hope that their future efforts will be positive and ethical forces in contributing to that financial world.

Another goal for the unit is to empower the students with 21st century skills. “Teachers can no longer cover material; they, along with their students, uncover solutions. They teach existing core content that is revised to include skills like critical thinking, problem solving, and information and communications technology literacy. Teachers facilitate instruction encouraging all students to use 21st century skills so they discover how to learn, innovate, collaborate, and communicate their ideas.” I want the students actively involved in the process of learning, using computers, which they enjoy so much, and collaborating with their peers. Finding facts and resources using the Internet will force them to assimilate the information in their own words. Sharing this information with peers improves their communication skills by others asking them for clarification. The teacher is there as a guide to encourage conversation among peers and students to take ownership of their learning. 21st century skills are just that, tools children will need to be successful in a competitive world job market.

Economics play an important role in the development of Charlotte in the global market. In fourth grade, they are fortunate to benefit from Junior Achievement's economic unit called Biz Town. It is a simulation experience where students run a city for the day in the basement of a downtown skyscraper, modeled to look like businesses of a small city. At least 3 weeks are spent developing skills in running a business. Some of the concepts developed are supply and demand, pricing and profit, paying for overhead and taxes, and personal finance. Students have a specific job within a business where pay varies depending on the complexity of the job. More money is made from more problem solving and people managing. Less money is made when the job entails putting together a product or selling it to the customer. We do not touch upon raising capital to invest in improvements for the business, but entrepreneurs are introduced near the end of the program. This economic unit occurs before our study of industry and change. I will build upon their learning from Biz Town as we see Charlotte grow into a key financial city in the South.

A final goal is for students to begin to imagine what they can contribute to the world. By studying past peoples' contributions and their effects on society, students can dream of possibilities for themselves. Our administration has asked teachers to wear their university T-shirts and display their diplomas and degrees in the classroom. They want students to think of college as a place they look forward to attending. Nine year olds live in the moment. This future thinking may be challenging to them, but it is a good thing to have them begin thinking about it now.

Rationale

I enrolled in the seminar "The Rise of the New South" at the University of North Carolina at Charlotte to better understand the historical sequence of this state. North Carolina's last social studies textbook adoption was 2003. I want students to know how their state and city has changed from its beginnings until now and then make predictions about the future. When I arrived from California in 1993, textiles, furniture, and tobacco were the state's major industries. Today, advanced manufacturing, software and information technology, finance, and biopharmaceuticals show the diversity taking place in this state. Charlotte's skyline is being transformed. Eight of Charlotte's largest skyscrapers were built within the last ten years and there are more approved and proposed. It is North Carolina's largest city, located in the Piedmont region along with the state's other large industrial cities. To adjust for the old textbook, teachers are encouraged to use the Internet and other more current resources in developing more

rigorous lessons. I will use my understanding of the “New South” to create a unit where students are in charge of their learning by doing research and drawing conclusions. My class of 24 students has a wide range of academic abilities, from the 10th to 98th percentile based on the state’s end-of grade testing of third graders. Last year, the percent of 4th grade students who passed the end-of-grade tests in reading and math was in the low 60s. For grade five, it is in the low 70s. Emphasis is being placed on assessing and addressing reading skill development across the grades. Our school philosophy empowers teachers to develop and use curriculum that meets the needs of each teacher’s particular class. The principal places the professional responsibility on us to provide the best teaching for the students so that each makes Annual Year’s Growth. Many school leaders are strongly encouraging teachers to focus on reading, writing, and math skills at the expense of eliminating the sciences in the elementary years. I believe the teaching of sciences is great practice with non-fiction reading skills, organizational techniques, and higher level thinking. I will use Charlotte’s history to illustrate the concepts of change and industry. The seminar instructor, Dr. Shep McKinley and the textbook, *Sorting Out the New South City*, have deepened my understanding of the city’s development. Students will understand that it was a lot more than cotton that made our city blossom.

Our Charlotte, NC suburban school of grades K-5 is one of 104 elementary schools in a county wide school system. Over 900 students make up a diverse group economically and racially with over 50% on free or reduced lunch, 60% African American, 16% Caucasian, 11% Hispanic, and 13% Asian and multiracial.

Sequence of Strategies and Historical Background

For each lesson, the class will plot events on a timeline and discuss the **industry**, the **transportation**, and the **resources** (natural, human, and capital) of that period in time. There will be a small group activity where students are engaged in research, sharing ideas, and recording information in their own words. Then, the class will come to consensus about the main idea of that time period where the students can support that main idea with details from what they have learned. The unit will be introduced using activity one, named Charlotte, a Changing City (see lesson plan).

Time Period One: “A Trifling Place” (1750-1850)

Teacher Content

In the mid 1700s, there were few settlements in the Piedmont region of North Carolina. It was called the “backcountry” or land in back, west of the Coastal Plain, the region of most development. By 1750, pioneers were using oxen-driven wagons down the Great Wagon Road from Pennsylvania, Maryland, and Virginia to seek good farmland. This road began as a path the Native Americans followed to hunt buffalo. In 1753, the first settlers arrived on the hill we know as Charlotte, a few miles away from the Catawba River. This water resource would later be used by James B. Duke in 1905 to generate hydroelectricity for the cotton mills and future use. The people farmed the land for survival. Families traded for things they needed. By the time of the American Revolution, the county was growing and processing corn and wheat, but it made limited profit. The geography of the Piedmont’s rolling plateau made traveling difficult with poor dirt roads and un-navigable rivers. Unlike the plantations of the coastal plain, Piedmont farms could not sell any kind of cash crop. There was little money for capital improvements. George Washington, passing through the area several years after the Revolutionary War, remarked in his diary that the hamlet was a “trifling place”.

Things began to change in 1799 when 12 year old Conrad Reed was fishing with his siblings and found a 17 pound nugget of gold. The discovery started America’s first gold rush, and Charlotte became the trade center for America’s first gold-producing region. This brought Charlotte’s first state bank and later, in 1837, a branch of the U.S. Mint, coining \$1.6 million in gold within a decade.

In 1793, Eli Whitney improved the cotton gin, allowing cotton farming to become profitable for the first time throughout the South. The plantations of the coastal plain region benefited most from the invention and from river transportation to NC’s only seaport, Wilmington. Cotton was grown in the good soils of the Piedmont. But the unreliable roads of this backcountry made transportation tedious to the nearest navigable river to the port of Charleston, SC. Until development of the railroads connected Charlotte with other cotton growing areas, the town waited to become a cotton trading center. In the meantime, farmers could not rely on cotton as their cash crop. The cost of transportation to Charleston and the fluctuating price of cotton made the farmer’s profit margins too risky. Wheat and corn were grown as well, with corn liquor from 62 stills being easier to transport to Charleston. In the 1810 census, Mecklenburg County boasted 103 cotton gins and 3,512 bags of cotton at 250 pounds each, all being sent to Charleston, South Carolina, via 80 miles of dirt roads to the nearest river port. The lack of an easy cash crop forced the people of our county to invent new ways to earn a living.

Resourceful people were trying ways to mill cotton at this time. In 1815, an entrepreneur named Michael Schenck, after traveling down the Old Wagon Road from Pennsylvania, built North Carolina's first water-powered textile mill beside a fast-moving stream near Lincolnton, but cotton mills would not be plentiful in the state until early 1880s.

Activity Two

Students will set up a timeline from 1750 to present day in a 10 year interval. Two students from the group of three will set up the machine tape and record the events below. The other student will look up the definition of sustenance and trifling so each team can discuss why George Washington called our town "a trifling place" and the meaning of sustenance farming. They will find pictures in the textbook, and possibly the Internet, to support this opinion. Finally, the small groups will share with the class what they have learned, drawing conclusions about life in this time period. Teams will each make a prediction about what may happen during the next time period in Charlotte's history.

Timeline Entries

Pre-1750 Catawba and other Native American tribes used trading paths on hill which is now where Trade and Tryon Streets cross in the center of Charlotte.

1753 First white settlers in the Piedmont Region

1768 Charlotte was the county seat, a rural courthouse village

1775-1783 American Revolutionary War

1790 George Washington visited and called Charlotte a "trifling place"

1793 Eli Whitney improved the cotton gin

1799 Gold is discovered on Reed farm, northeast of Charlotte.

1810 Mecklenburg had 103 cotton gins, sending 3512 bags of cotton to Charleston, SC

1816 Michael Schenck built NC's first water-powered cotton mill near Lincolnton.

Time Period Two: "Banks and Railroads Come to Town" (1852-1880)

Teacher Content

Geography was holding Charlotte, a "county prisoner". The state legislature discussed building a state-owned railway, but little progress was being made. The landowners of

our county were interested in promoting a railroad connection with South Carolina's track that went from the port of Charleston and ended in Camden, 80 miles south of Charlotte. This would increase their property values. Farmers with little land would benefit from Charlotte opening up as a broader market place. By mid-1870s, Charlotte had six connecting rail lines, which created an opportunity to become the leading trade hub of the state and the region. Industry and economic growth was slow in the South immediately after the Civil War. But Charlotte was in position to blossom economically because southern cotton was rising in demand and could be transported to places like New England where textile mills were in operation. Industrious men wanted to invest in a "New South." They pushed for non-agricultural development. North Carolina, as with other southern states, was rich in natural resources, yet the people did little besides farming to capitalize on the land's bounty. The war exposed the region as a land of "poverty in plenty," with abundant natural resources but no manufacturing capacity to utilize them. The story below illustrates that point. *Atlanta Constitution* editor Henry Grady traveled the region stirring Southerners to action with the woeful tale of a Georgia burial:

They cut through solid marble to make his grave; and yet a little tombstone they put above him was from Vermont. They buried him in the heart of a pine forest, and yet the pine coffin was imported from Cincinnati. They buried him within touch of an iron mine, and yet the nails in his coffin and the iron in the shovel that dug his grave were imported from Pittsburgh. . . . They put him away. . . in a New York coat and a pair of breeches from Chicago and a shirt from Cincinnati. . . . The South didn't furnish a thing on earth for that funeral but the corpse and the hole in the ground.

These "New South" men did not have the capital to fund a railroad track from Camden, SC. They came up with a bidding competition between a track from Columbia, SC and one from Camden, SC. Marketing the small towns of South Carolina with two sets of stocks to sell for the two routes, Camden ended up winning the bidding war. In October of 1852, the first passenger train rolled into Charlotte. This gave the city a huge advantage over other courthouse towns in NC backcountry. Soon farmers from miles around were selling their cotton in Charlotte and buying groceries and supplies. To handle the blossoming trade, in 1853, Charlotte's first locally owned bank, Bank of Charlotte, opened its doors. Then in 1854, the North Carolina State Railroad finally reached to Charlotte, connecting it with Greensboro and Raleigh, the state capital. Two shorter rail lines were created in early 1860s. With four new rail lines, banking interests, and a growing market for trade of cotton and merchandise, Charlotte was getting ready

for a boom in growth. The area did have some cotton mills, but none like the highly mechanized mills of the New England area. North Carolina had 39 cotton mills by 1860, most relatively small and located in the Piedmont near waterfalls for power.

Activity Three

The class will make a large, three column T-chart of pictures illustrating the Past and Present of the Charlotte area. Printed in the first column will be the pairs of titles from the resource cards. The second and third columns will be titled Past and Present respectively. Cooperative groups will use their resource cards and visual media to make colored illustrations of life and technology for the past and present for their set of topics. For example, the cotton/railroad group will draw: overloaded wagons with bales of cotton on a rutted road, an NC map with the new rail lines in place, Douglas International Airport, fields of cotton, a trading market in downtown Charlotte, a modern building showing the title Textile Innovation and Technology. These will be attached to the proper columns and displayed in the classroom. We will discuss our predictions from earlier lessons, and then predict where Charlotte is going once it becomes a huge cotton trading center in the area. Probing questions may include: To whom is Charlotte selling the cotton and where is cloth being produced in our country? What kind of ideas and technology are needed to make cotton a money-making industry? Where will the money come from to find or develop this kind of technology? What kind of marketing and transportation is needed to make this industry profitable? New events will be added to the timelines.

Timeline Entries

1850 Steam power replaced water power in factories.

1852 The first passenger train came to Charlotte by way of South Carolina.

1853 Bank of Charlotte, first locally owned bank

1854 The North Carolina State Railroad connected the county with Greensboro & Raleigh.

1861-1865 The Civil War: It stalled economic development of the entire South.

1861 Mecklenburg Iron Works, Charlotte's only industry, switched from making mining equipment to casting Confederate cannons.

1865-1875 The South had little industrialization as most southerners and businesses are in survival mode after the war. Charlotte, however, bounced back quickly and began to prosper as its cotton farmers brought as much to market in 1866 as they did in 1860.

1869 There were 183 merchants in Mecklenburg County.

1872 Charlotte and Wilmington were connected by railways.

Time Period Four: “Bring the Mills to the Cotton, We’re Building a City.” (1880-1945)

Teacher Content

The 1880s were a dramatic decade in Charlotte history as entrepreneurs had great industrial plans for a New South city. Now that they had six railroad lines connecting Charlotte to many farms and markets near and far, they needed the capital to invest in the latest milling technology. Robert Oates got his capital from years of buying cotton and selling supplies to farmers. He and his brother, David, amassed enough money and then traveled to the North to buy the latest machinery for their Charlotte Cotton Mill, the town’s first successful mill. It was built at a cost of \$15 per spindle with 6,240 spindles in the factory. It cost \$60 a day to run, making a profit of \$155 a day. The Oates brothers had invested their capital in the newest technology in a town with good transportation to many markets with the natural resources of good soil and cotton to become almost instantly profitable. Soon other mills were built by other investors throughout North and South Carolina. Charlotte with its rail lines and banks became the logical place to trade with all these mills. “The multiple rail connections kept transportation prices low and helped Charlotte’s economy expand.” Other industries connected to textiles soon formed. The Mecklenburg Iron Works, which made equipment after gold was discovered in 1799, now employed 70 people who made and repaired cotton presses, and built steam engines and boilers for factories. Charlotte was called the “greatest trouser manufacturing city in the country” years after Edward Dilworth Latta opened the Charlotte Trouser Company.

D.A. Tompkins is a prime example of an entrepreneur who invested his ideas and money to greatly diversify Charlotte’s economy. His company specialized in designing, building, and finally, owning cotton mills. Tompkins eventually bought what would become Charlotte’s primary newspaper, the *Charlotte Observer*, and became one of the prophets of the New South. Besides designing over 100 cotton mills in the Piedmont, Tompkins found profitable uses (vegetable oil and fertilizer) for the cotton seed, thus forming spin-off industries related to the textile industry. Totally invested working in the South, he published how-to books, created investment plans, helped to set up colleges, and ran a newspaper. Charlotte became a city. Well educated people were investing their ideas and money to create industries that used the land’s natural resources and the state’s human resources to create wealth and a better life for the people of Charlotte. The good

transportation and five centrally located banks were also key components that made Charlotte population growth explode from 7,084 in the 1880 census to 100,899 in 1940.

By the early twentieth century, the major **industry** had become textiles, but Charlotte was **diversifying** into other fields. One fourth of the people lived in the city, blacks and whites from rural areas were moving into urban areas, developers were creating suburbs, and companies built the first skyscrapers downtown. By 1889, Charlotte was a small city with six industrial machine sellers, three clothing factories, two cotton ginneries, one cottonseed oil mill, and five cotton mills. By 1910, superior railroad connections had made Charlotte, North Carolina's biggest city, changing the area from cotton and tobacco farming to textile production. Entrepreneurs continued to aggressively lead the region toward their vision for a "New South."

During the twentieth century, Charlotte developed into a major distribution center for many products due to its transportation infrastructure. North Carolina's Highway Act of 1921 provided money to build roads between major towns and county seats. These new industries attracted salesmen, the film industry, RCA, and Ford Motor repair and parts. After the 1920s, the rise of the trucking industry, the decline of the textile industry, and the rapid growth of banking constituted the major changes in Charlotte's economy. By the 1990s, Charlotte had become a major city with diversified industries, professional sports teams, and one of the nation's top financial centers.

Activity Four Processing Cotton to Yarn (see lesson plan)

Students will handle a cotton boll and attempt to stretch it into a useable yarn. They will discuss the energy needed to process raw cotton and examine the workings of a water wheel used in the first cotton mills. Predictions will be made for future power sources.

Activity Five Understanding Mill Life Using Lyrics (see lesson plan)

Students will learn about life in a mill town by choral reading lyrics from mill songs by Dave McCarn and Ella May Wiggins. Small groups will work together, using context clues and definitions to make sense of the mill language and dialect. Students will draw conclusions about the positive and negative aspects of poor farm life versus mill life. This will be compared to the virtues of a good education as seen in the likes of Tompkins and the Oates brothers. We will then listen to McCarn sing his song through YouTube. We will use photographs of mill villages and factory conditions, plus the voices of children

who worked in the mill. In math class, they will create two graphs that compare populations of four major NC cities at two periods of time. In 1860, Charlotte was dwarfed by Columbia, Wilmington and Charleston. By 2009, Charlotte towers over the three cities due to its diversified industry, comprehensive transportation, and dominant banks.

Activity Six

Students will use web graphic organizers to show how one business or industry spawns another. I want students to understand the difference between a business and an industry. These terms are synonyms in the dictionary but children need to see how related businesses are part of a larger industry. Textile is an industry. Businesses that support that industry include: farmers that grow cotton, mills that spin and weave cotton, design and engineering of machinery for the mills, mechanics that repair the machines, chemists and research development of dyes and fabrics, design and sewing of the various products from the textiles, marketing, transportation, retail and sales for the product. They will see the many businesses that make an industry. They will notice the dependence of one industry upon another.

Timeline Entries

- 1880 Entrepreneurs planned a New South through industrialization.
- 1883 Edward Latta opened a trouser factory in Charlotte.
- 1910 Charlotte overtook Wilmington (NC's largest seaport) in population.
- 1920 Tompkins and Latta passed on leadership to younger men. These two men exemplified innovators that set the pattern of growth for others to develop.
- 1921 North Carolina started the "Good Roads" program, more highway development.
- 1927 Southern textiles surpassed New England's production
- 1929 Charlotte was the largest city of the two Carolinas.
- 1929-1941 Stock market crashed and Great Depression created bad times for the textile industry and its workers.
- 1941-1945 WWII The war spurred another dynamic growth period for the region.

Time Period Four: "Diverse Industry and Our International City" (1945-present)

Teacher Content

Good transportation services are critical for industrial growth of a city. Built in 1936, the Charlotte airport was expanded in 1954 to open a large passenger terminal. In 1978 international cargo flights operated to Germany. In 1988, direct passenger flights to London gave Charlotte Douglas airport international status.

Charlotte is the 16th largest trucking center in the nation, employing people in 327 trucking companies. Located in a central position on the east side of the country, it has easy access to Interstate highways. The city's trucking hub is 24 hours from over 50% of the United States population. Charlotte continues to prosper with banking and develop other diverse industry. In 1998, it became the second largest banking city in the USA (1.7 trillion dollars in assets), next to New York City (2.8 trillion) when Hugh McColl led Nations Bank in a merger with Bank of America. The Charlotte area is now selling financial services and information technologies, where once it was a leading textile maker for Cannon towels, Springmaid sheets, Hanes underwear, and denim for jeans. Industrialization of textiles continues to follow the lowest labor costs. Now, when we look at the tags on our shirts, they are places in the Far East. State leaders began combining higher education institutions with research facilities, medical institutions, and government offices to create Research Triangle Park, in the Raleigh-Durham-Chapel Hill area. (Our everyday bar code was created there!) This high tech park idea has spread to other areas of the Piedmont and now there is one near Charlotte. They tore down the Cannon mills in Kannapolis to build the North Carolina Research Campus with the idea of training former mill workers and others for new jobs. Low-wage, low-education jobs are being replaced with higher wage, high education technical jobs. The shift is slow and more effort is needed to attract more high tech companies like Cisco, Google, and Dell. Quality education of our most valuable human resource, the youth, is key to developing new ideas to combine with capital and natural resources to attract and create businesses and industries.

Activity Seven

Students will use computers and teacher provided websites to discover the major industries of Charlotte today. Sites will also include what characteristics Charlotte possesses that make it attractive to industry and people. They will design posters telling "What Makes a Great City" or "Latest Businesses to make a Home in Charlotte."

Timeline Entries

1950's Textile industry and food processing industry were at their peak. Research Triangle Park was formed inside the triangle of cities: Raleigh, Durham, and Chapel Hill.
1988 Charlotte Douglas Airport got international status.
1998 Charlotte was second largest banking city in the USA
2005 Cannon Mills torn down, NC Research Campus construction begins.
2008-09: Wachovia, one of Charlotte's dominant banks, virtually goes bankrupt, bought by out of state Wells Fargo; BankAmerica stumbled during national banking crisis.
2010 Textile industry continues to shrink; most mills in the region have closed.

Classroom Activities, Implementing District Standards, and List of Materials

Grade Level/Subject: 4th Grade/Social Studies Topic: Charlotte, a Changing City
Activity **One**-Introducing the Unit

NCSCOS Standards and Objectives Social Studies & Reading

1.03 Influences location has on life in NC

3.02 Identify symbols, events, and people associated with NC history

2.07 Determine usefulness of information consistent with purpose

Instructional Objective

Performance: To introduce the unit, students will be given resource cards to predict what these natural, capital, and human resources have to do with Charlotte's development as a major city in the south region of the USA.

Conditions: Students will work in heterogeneous groups of three or four to predict, research, and record findings.

Criteria: Students will record information learned using a graphic organizer and share three things with the class.

Objective Rationale

This introductory lesson engages students in the idea that many factors worked together to change Charlotte from a village to a growing international city. They are responsible for rationalizing their predictions, doing the research, sharing their learning in student language, and generating questions for further study.

Prerequisite Knowledge and Skills

Using prediction as a reading research skill, Accessing internet sites, Using an index from a textbook, Locating topics in library books, Using a graphic organizer, Drawing conclusions from non-fiction text for the purpose of display and oral sharing with peers, climate and geography of the South.

Materials & Prep

8 resource cards with picture and title of: The South, People, Soil, Cotton boll, \$100 bill, Railroad, Gold nugget, Bank, 8 industry cards, Current social studies textbook, illustrated books of Charlotte history from school library and public library, classroom computers with Internet access, interactive white board, 12X18 construction paper, markers
Teacher assigns groups based upon ability and student personality.

Engage

“At the beginning of our school year, we shared why people move to Charlotte and created a bulletin board showing the great features and characteristics of our fine city. Then, we made a clay map of NC’s physical features and learned of its natural resources. In preparing to go to Biz Town, we learned how people use resources to start a business. In this unit of study, we will discover how Charlotte came to be what it is today. Our focus questions are: What factors helped to change Charlotte over time? What is the sequence of key events that shows Charlotte’s change from village to major city?”
Teacher models a KWL chart for groups to create on the 12X18 paper. Teacher passes out two resource cards to each team: groups 1&2-soil & The South, groups 3 & 4-cotton & railroads, groups 5 & 6-people & money, groups 7 & 8 gold & banks. Each group receives an industry card. “Study the cards you received and discuss with your teammates what they have to do with Charlotte and how those cards are connected.” Teacher observes and encourages the conversations taking place. “Now, in the K column, record what you know about Charlotte as it relates to your cards. In the W column, use a question format to share what you want to know about these topics in order to answer our focus questions.” Teacher monitors. “Finally, across the top of your poster, make a prediction about **how** Charlotte changed from a small village to a major city in the USA.”

Explore

Using the resources, students work with their teammates to fill in the what I learned part of the KWL chart.

Explain

As students are working, I will ask questions about what they are doing, what they are learning, and how it fits with the cards their team was given. The soil and South cards refer to natural resources of the South as in climate and geography for farming. The South grew abundant cotton after the railroads connected more markets. People’s ideas were realized when money was available for capital investment. The discovery of gold brought banking into the area. These card connections will be difficult initially, but questions will be formed and predictions made to initiate discovery. As they come across other information about Charlotte, I will encourage them to share it with the group

studying that topic. Encouragement from the teacher and student to student is vital to this exploration activity.

Elaborate/Extend

After 30 minutes, we will gather together and the spokesperson from each group will share what they learned. This listening activity will create curiosity about the past history of our region. It will also indicate whether we need another day to continue the research. The posters will be hung in the classroom for easy access to all.

Evaluate

A participation grade will be given based upon: good use of research time, contributions within the small group, effective use of Internet, index, chapter titles, and visual media, attitude/curiosity

Plans for Individual Differences

Students can ask peers for assistance. I will assist in finding appropriate sites for research and understanding the text of difficult passages. Group jobs will be assigned based upon student strengths.

Grade Level/Subject: 4th Social Studies

Topic: Energy for the cotton mills

Activity **Four**-Processing cotton to yarn

Sequencing a cross-section diagram

NCSCOS Standards and Objectives

Social Studies and Reading

7.01 Examples from NC history of the impact of technology

7.03 How technology influences the movement of people, goods, and ideas over time

3.05 Analyze and integrate information from multiple sources to expand understanding

Instructional

Objective

Performance: Students will attempt to clean raw cotton and twist it into yarn. Students will conclude that an energy source is needed for milling cotton. They will examine a cutaway diagram of the 1815 water-powered, cotton mill of Michael Schenck.

Predictions will be made about energy sources for future milling innovations.

Conditions: Given a cotton boll, students will: remove plant debris and seed, note length of fibers (lint), pull and twist to get a length of yarn. Partners will discuss the mill diagram and sequence its operation.

Objective

Rationale

Making their own yarn will help students understand the energy required to produce enough yarn for cloth to make jeans or a shirt. Some form of innovation is needed to make money from creating textiles on a large scale. Natural, human, and capital resources are needed to create and fund this technology.

Vocabulary

Cutaway diagram, cross-section, innovation, carding, drawing, spinning, spindle, dressing, warper, loom, lint

Materials

Cotton bolls, Horizons social studies textbook p176, 180-181

Engage

Today we are going to take a cotton boll and see if we can stretch and twist it into some kind of thread. Each child will receive a cotton boll, remnants of cotton plants gathered by the teacher from land that was machine stripped. Students will sketch the plant, remove the prickly husk, observe the many fine linters that keep the cotton seed attached to the boll, remove the seed, and pull out the dirt and debris in the boll. Then, we will attempt to make a piece of yarn by hand by gently stretching and twisting the fibers. They'll notice this task of spinning is not easy. (Make reference to spinning wheel at Latta Plantation or from fairy tales) Great amounts of energy are needed to create enough yarn to sell or for producing fabrics to sell.

Explore

In 1815, an entrepreneur named Michael Schenck, after traveling down the Old Wagon Road from Pennsylvania, built North Carolina's first water-powered textile mill beside a fast-moving stream near Lincolnton. Partners will read about Michael Schenck and then study and discuss the sequence of the cutaway diagram of a textile mill. Some groups will use the Internet to find other cutaway diagrams of a mill's operation.

Explain

Teacher will prompt students with clarification questions like: Why was developing this mill important? Could a mill be located anywhere in the Piedmont region? Why are there so many windows in the mill? What is the sequence of energy from water to cloth? Students may notice the need to do something about the seeds.

Elaborate/Extend

Investigation ideas: operation of a cotton gin, setting up a loom, compare a waterwheel to the operation of a steam engine, how James B. Duke created electricity from water power, uses of cotton seeds

Evaluate

Students can sequence at least four processes from cotton boll to yarn. Student can create a cutaway diagram of a mechanical object like a pencil sharpener or copy machine.

Grade level/Subject 4th Social Studies Topic: Mill Life versus Farm Life
Activity **Five**-Understand mill life using lyrics
4th/Reading& Social Studies

NCSCOS Standards

3.01 Assess changes in ways of living over time, whether political, economic, or social
Goal 2 Reading-Read a variety of texts; identify elements of the story; draw conclusions with support from the text

Objectives & Rationale

Students will chorally read the lyrics for oral fluency and rhythm. In small groups, students will interpret the meaning of the writer and draw conclusions about mill life. Comparisons will be made between sustenance farm life and mill village life. Students will learn about mill life of early 1900s through song lyrics. They will discuss whether it's a better life than farming and how mill workers could improve their life beyond mill work.

Materials

Internet sites of mill life, copy of lyrics for projection

Engage

Students view pictures of mill towns and children working in the mills. Put up these questions for later discussion: Where did these people come from that work in these mills? Remember sustenance farming where most farmers were "renting" the land? What advantages did mill life have? What about children going to school? This would be a good place to hear the voices from that child Labor short video.

Explore

Figurative Language

Project the lyrics to “Poor Man, Rich Man” by Dave McCarn and later “The Mill Mother’s Song by Ella May Wiggins. Read chorally several times, then have small groups find meaning for the highlighted phrases and draw conclusion about mill life versus farm life using a T chart. Student would then collaborate to write a song/rap about their life.

Pale in the face; hard as he can tear; he’s a grizzly bear; the rich man bust; peddlers make a racket like peckerwoods; run the mill man down; make the world go round; We are sure to win our union, if all would enter in.

Explain

Speaker from each group will share with the class one idea about the change from farm life to mill life.

Extend

Investigate the education, lifestyle, and driving force of these people: Ella May Wiggins, Dave McCarn, Daniel Augustus Tompkins, Robert and David Oates, James B. Duke, Hugh McColl

Evaluate

Participation grade using a rubric

Materials for Classroom Use

COTTON BOLL

TRANSPORTATION

GOLD

BANKS

SOIL
PEOPLE
MONEY

The SOUTH

United States of
America

What does it mean?

INDUSTRY

How does it fit it?

What does it mean?

INDUSTRY

How does it fit it?

List of Materials for Classroom Use

YouTube videos play mill folk music and show a photograph slideshow of mill life and workers. The folk music is sung by the author. The child labor photographs illustrate the lifestyle of that time period.

- www.youtube.com/watch?v=4CuXKbsqmVM
Dave McCarn singing “Cotton Mill Colic”

- www.youtube.com/watch?v=xNeBgpuNMSI
Child labor in Gastonia, NC cotton mill
- www.youtube.com/watch?v=oB3f6g2Taxo
“Mississippi Cotton Pickin’ Delta by Charley Pride

http://en.wikipedia.org/wiki/cotton_mill This site shows a detailed flow chart of processing raw cotton, text and pictures of English and New England mills, and animated diagrams of steam-driven mills.

<http://charlotteusa.com/business-info/industry/> This site has current, color photos of Charlotte and easy to read lists of modern day Charlotte finance, international business, transportation, distribution, manufacturing, and entertainment.

http://en.wikipedia.org/wiki/List_of_tallest_buildings_in_Charlotte This site has a color panorama of the city with individual photos of the skyscrapers. There is a great chart listing the buildings with height, number of floors, what business occupies the building, and date construction was completed.

www.nccommerce.com/en/BusinessServices/LocateYourBusiness/WhyNC/ProfilesofIndustry This is the Official Website of the NC Department of Commerce. It is easy to view and subgroups industries into military, biotechnology, information technology, textiles, business/finance, chemicals and plastics—a great site for students to explore NC industries.

www.ibiblio.org/sohp/laf/overview.html#Anchor-About-49575 This is the website based upon the book, *Like a Family: The Making of a Southern Cotton Mill World*, 1987. It is an informative site with text and photographs for students and teachers about life in a mill town.

<http://ncatlasrevisited.org/homefrm.html> This site is an atlas for North Carolina that is well organized by social studies strands. Each strand is filled with text, graphs, data charts and illustrations. It would make a good interactive board site.

<http://www.lib.unc.edu/stories/cotton/lessons/report.html> This site has lessons regarding the cotton mill experience. It contains short audio stories from actual people who worked as children in the mills.

<http://www.lib.unc.edu/ncc/ref/nchistory/jun2004/> and

<http://ncmuseumofhistory.org/workshops/womenshistory/SESSION4.html#wiggins>

These sites tell the story of Ella May Wiggins who wrote songs about working in the mill and tried to raise consciousness for a union.

First Ward Elementary Fourth Graders, *Of the People*. Charlotte: Main Street Rag, 2009. Print. This book was made by students after studying a unit.

Hanchett, Thomas W.. *Sorting Out the New South City: Race, Class, and Urban Development in Charlotte, 1875-1975*. Chapel Hill: The University of North Carolina Press, 1998. Print. This book describes the growth of Charlotte, North Carolina from 1875 to 1975.

Henson, Ted S.. *Harcourt Horizons North Carolina*. Student ed. New York: Harcourt School, 2003. Print. This is the latest state adoption social studies textbook.

Huber, Patrick. *Linthead Stomp: The Creation of Country Music in the Piedmont South*. Chapel Hill: The University of North Carolina Press, 2008. Print. This tells the story of folk artists and inspiration for their lyrics.

Kratt, Mary Norton. *Remembering Charlotte: Postcards from a New South City, 1905-1950*. Chapel Hill: The University of North Carolina Press, 2000. Print. This is a large picture book of Charlotte, NC.

Kratt, Mary Norton. *Charlotte: Spirit of the New South*. Winston-Salem: John F. Blair Publisher, 1992. Print. This is a pictorial book of Charlotte, NC.

Morrill, Dan L. *Historic Charlotte: An Illustrated History of Charlotte & Mecklenburg County*. San Antonio, Texas: Historical Publishing Network, 2006. Print. This is a pictorial book of Charlotte for kids to see past scenes and lifestyle.

Walser, Richard. *North Carolina Parade, Stories of History and People*, Durham: The University of North Carolina Press, 1966. Print. This book shares pictures and stories of Charlotte and the state.

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Endnotes