



Teacher Curriculum Packet

Kayla Utendorf

History 6220: Public Programming for Museums and Archives





This curriculum packet was inspired by the life and times of Louise Mott Miles. Louise was a student at Middle Tennessee State University (then Middle Tennessee State Teachers College) in the 1920s at the end of the Progressive Era. She majored in home economics and went on to teach the subject at the high school level for several decades after. She enjoyed making clothing for herself and for dolls, writing in her diary, and making scrapbooks out of ticket stubs, letters, cards, and photographs. This packet is designed for use in a 5th grade classroom and will familiarize students with many aspects of the Progressive Era, as well as introducing them to some primary sources without necessitating the need for a field trip.

Cooking and Heat Transfers

Tennessee State Curriculum Standards, Grade 5:

Social Studies:

5.10 Understand the economic growth and social transformation of post WWII.

5.14 Understand economic, social, and cultural developments in the contemporary United States.

English/Language Arts:

GLE 0501.2.1 Continue to develop critical listening skills necessary for comprehension and task completion.

GLE 0501.2.2 Continue to develop strategies for expressing thoughts and ideas clearly and effectively.

√0501.2.1 Listen attentively by facing the speaker, asking questions, and summarizing what is said.

√0501.2.2 Use established rules for polite conversation (e.g., do not interrupt, face the speaker, listen attentively, provide appropriate feedback, take turns).

Science:

√0507.10.3

Describe the differences among conduction, convection, and radiation.

Objective:

Students will learn the differences between conduction, convection, and radiation, and specifically how each of these types of heat transfers relates to different methods of cooking.

Students will also learn how the invention of the microwave oven changed the American kitchen.

Materials:

- Sample photographs
- Heat Transfers Worksheet

Prep Time:

Approximately 15 minutes to copy Heat Transfers Worksheet and sample photographs. Pictures can be copied and handed out to students or displayed on an overhead projector.

Instructions:

1. Show students the photograph of Louise Mott Miles. Explain that she attended college in the 1920s, majoring in home economics, and went on to teach home economics to high school students. Discuss as a class what technologies Louise may have had available to her at this time. Tell the class that they today they will be learning about how heat moves by imagining different methods in which Louise could cook a meal.
2. First, tell the students to imagine Louise cooking a skillet of bacon on the stovetop. Ask them what is making the bacon heat up. (The bacon is directly touching a hot surface.) Explain that this type of heat transfer is called “conduction”, and it occurs when heat is

transferred through direct contact. Also note that not all materials conduct heat well. Discuss with students what most of their pans at home are made out of, then have them imagine what would happen if they tried to cook with a pan made out of plastic or wood.

3. Next, tell the students to imagine Louise baking a cake in the oven. How does the cake get warm? (The hot air surrounding the cake warms it from the outside to the middle.) Explain that this is called “convection”, and convection is when heat is transferred because of air or liquid moving. In the oven, a heating element in the bottom produces heat that then rises up into the oven. Since it is an enclosed space, the heat becomes trapped and the entire oven is hot, allowing food to cook evenly. Boiling water is another example-the bubbles rise to the top, then are pushed to the side of the pot and back down to the bottom.
4. Ask students what else they use to cook food that Louise did not have when she started teaching. (A microwave oven.) Explain the following:

Microwave technology was discovered by accident in 1945 by Percy Spencer when he noticed that the chocolate candy bar in his pocket melted when he was working next to a microwave radar machine. The first microwave ovens were huge and were mainly used in restaurants. It was not until the late 1960s and early 1970s that smaller, affordable microwaves were produced, but when they were, they changed the American kitchen. Everyone wanted to own microwave ovens, and microwavable meals were invented. People also wrote cookbooks for using the microwave to cook all sorts of different foods. (Show students photographs of microwave cookbooks.) Now nearly all Americans own a microwave and use it daily.
5. Tell students that microwave ovens use “radiation” to cook food. Radiation is heat being transferred by electromagnetic waves. A microwave oven uses these waves to cause the water molecules inside of food to move faster, which heats the food. Radiation can also be felt if you stand next to a hot campfire or an oven door that someone left open.

Assessment:

Either in class or as homework, have the students fill out the Heat Transfers Worksheet.

Heat Transfers



Instructions: For the following examples, tell whether each is an example of conduction, convection, or radiation, and explain why.

1. Making hard boiled eggs _____

2. Making microwave popcorn _____

3. Cooking hot dogs on the grill _____

4. Making pancakes _____

5. Baking cookies _____

Heat Transfers



Instructions: For the following examples, tell whether each is an example of conduction, convection, or radiation, and explain why.

1. Making hard boiled eggs Convection or conduction: the boiling water is convection, the pan against the burner is conduction
2. Making microwave popcorn Radiation: the microwaves heat the kernels until they pop
3. Cooking hot dogs on the grill Convection or conduction: the heat circulating under the hood is convection, the hot grill is conduction
4. Making pancakes Conduction: the burner, the pan, and the pancakes are all in direct contact
5. Baking cookies Convection: The hot air circulates inside the oven to heat the cookies all around

MICROWAVE

COOKING

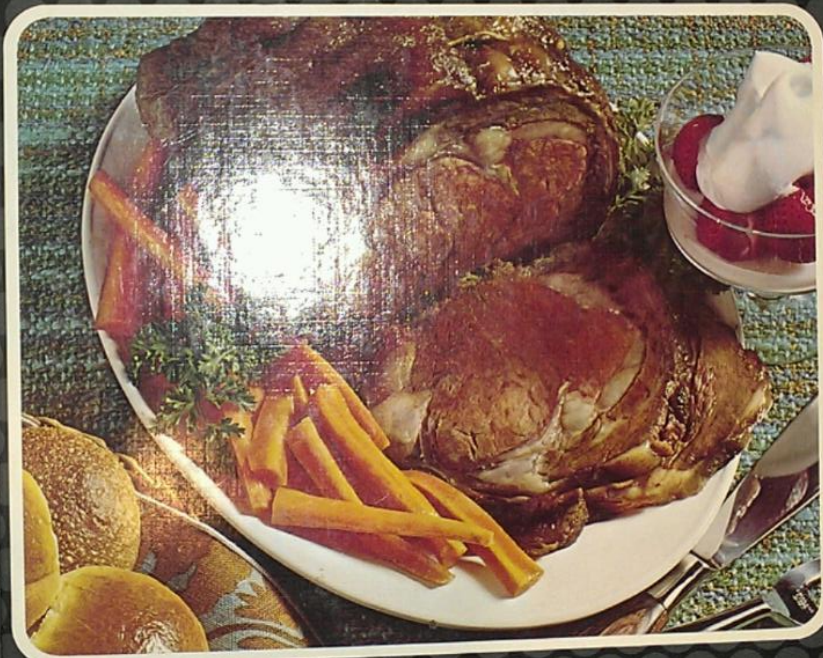
by Cyndee Kannenberg



an exciting new world of

\$6.95

MICROWAVE COOKING



from LITTON

Health: Turn of the Century and Today

Tennessee State Curriculum Standards, Grade 5:

Social Studies:

5.5.05 Discuss how various groups addressed the problems of industrial capitalism, urbanization, and political corruption.

a. Identify various Progressive reform efforts and their leaders.

5.5.07 Understand the changing role of the United States between World War I and the Great Depression.

b. Describe American life in the 1920's including the impact of Constitutional amendments.

5.5.tpi.2. Give examples of industrial capitalization, urbanization, and political corruption and its reform efforts.

6.02 Understand how groups can impact change at the local, state, and national level.

English/Language Arts:

√0501.3.4

Write poems, stories, and essays based upon personal reflections, observations, and experiences.

√0501.3.5

Compare and contrast two persons, places, things, or ideas.

√0501.3.8

Compose and respond in writing to original questions and/or problems from all content areas.

Health Education:

2.1 demonstrate the importance of personal hygiene practices

2.2 describe physical/emotional/social health implications of personal hygiene

4.3 explain the role of adequate sleep in health and performance of daily activities

9.3 describe ways diseases are spread and prevented

9.4 distinguish between safe and risky behaviors as related to disease prevention

13.2 analyze the influences of peers, family, and community on chemical substance use and abuse

13.3 evaluate the effects of substance use and abuse (e.g. tobacco, alcohol, over the counter and prescription medication, illegal drugs (including anabolic steroids and other performance enhancing drugs) on physical, mental, and social functioning

14.1 identify the causes and effects of different types of pollution on health

14.4 describe ways health agencies assist in promoting health and the environment

14.5 explain the importance of community organizations to healthy living

Objective:

Students will learn about the health reforms of the Progressive era and relate them to individual and public health today.

Materials:

- Projector and screen with internet access

Prep Time:

Approximately 20 minutes to look over photographs and queue them on the computer.

Instructions:

1. Select a few images from “How the Other Half Lives” by Jacob Riis and display them on the projector screen.
<http://www.authentichistory.com/1898-1913/2-progressivism/2-riis/illustrations.html>
 Ask students whether or not they feel the people depicted in the images likely lead healthy lives.
2. Explain that these photographs are from a book called “How the Other Half Lives” by Jacob Riis. Riis was a reformer during the Progressive Era, which lasted from the 1890s until the 1920s. He sought to show the upper class what sort of conditions the lower class (the other half) were living in, and hoped that this would motivate the upper class to help make the lives of the poor better.
3. From “How the Other Half Lives,” show students the following images: “Tenement-house yard,” “Lodgers in a Crowded Bayard Street Tenement,” “This man slept in this cellar for four years, about 1890,” “Getting ready for supper in the newsboys’ lodging house,” and “Tenement of 1863, for twelve families on each flat.” Mention to students that many buildings did not have indoor plumbing and that cities often had ineffective sewage systems. Have students discuss how disease is spread, and then apply those principles to families living in crowded housing. Explain that one reform movement during the Progressive Era included better housing for the lower class and better plumbing and sewage systems in an effort to prevent the spread of disease. Ask students to discuss how they can help prevent the spread of disease today with personal hygiene.
4. From “How the Other Half Lives,” show students the image “In a China joint.” Also show them the following images:
 “[New York City Deputy Police Commissioner John A. Leach, right, watching agents pour liquor into sewer following a raid during the height of prohibition]”
<http://www.loc.gov/pictures/resource/cph.3c23257/>
 “Latest thing in flasks. Mlle. Rhea, dainty dancer who is now in the city as part of the Keiths program inaugurates the garter flask fad in Washington”
<http://www.loc.gov/pictures/resource/ds.00150/>
 Ask students what appears to be happening in the photographs. Discuss what sorts of effects alcohol and illegal drugs can have on a person. Be sure to address the social and community impact of substance abuse. Explain to the students that another reform of the progressive era was the Clean Living Movement. Reformers rallied against the smoking of opium, and it was outlawed in 1914. Alcohol use was another point of contention for reformers, and many wanted it banned as well. They achieved their goal during Prohibition. In 1920, the Eighteenth Amendment went into effect, banning the manufacture and sale of alcohol, and it was not repealed until the Twenty-Third Amendment was passed in 1933. Many people ignored this law however, and creatively hid alcohol wherever they could.
5. From “How the Other Half Lives,” show students the image “Twelve year old boy (who had sworn he was sixteen) pulling threads in a sweat shop, about 1889.” Ask students

how many hours they think it is fair to work in a day. Then ask how many hours of sleep they got last night. Discuss the effects of not getting enough rest on your physical and mental health. Explain to students that during the early 1900s, many children worked nearly as much as adults and may not have gone to school past elementary school. Show them this photograph by Lewis Hine:

“488 Macon, Ga. Lewis W. Hine 1-19-1909.”

<http://www.loc.gov/pictures/resource/nclc.01581/>

Explain that Lewis Hine was a photographer who documented child labor in an effort to encourage the passing of stricter child labor laws. Rather than children working, reformers wanted children attending school. Schools were also encouraged to teach more classes on hygiene, health, and physical education. Other reformers (Florence Kelley) fought for an eight hour work day, because laborers may have been forced to work ten to twelve hours a day, and some encouraged workers to form unions to band together to fight for their rights (Samuel Gompers.)

6. From “How the Other Half Lives,” show students the images “Bottle Alley, Mulberry Road,” and “Street Cleaning, Fourth Street.” Have students discuss the different types of pollution and what effects these can have on health. What sorts of pollution likely affected health during this time? (If necessary, remind students of poor sewage, coal burning, wood burning stoves used to heat homes, etc.) Explain that pollution was another concern during the Progressive Era. Reformers sought to improve sewage and water systems, as well as cleaning litter out of the streets in an effort to improve community health. Ask students what affects pollution has on their health today. What can be done to reduce these problems?

Assessment:

Have students write an essay on the connections between Progressive reform and modern day health concerns. Students should be sure to address the following points:

1. How was pollution controlled in the early 1900s, and how is it a problem today?
2. How are children’s lives today different than the early 1900s?
3. How did Progressive reformers feel about drugs and alcohol? Have our opinions changed? How do these match the student’s opinions?
4. How has better housing and sanitation helped prevent the spread of disease? What else can the student do to prevent germs from spreading?

Math in the Home

Tennessee State Curriculum Standards, Grade 5:

Social Studies:

5.08 Understand society in America during the Great Depression.

Math:

GLE 0506.2.4 Develop fluency with addition and subtraction of proper and improper fractions and mixed numbers; explain and model the algorithm.

SPI 0506.4.1 Solve contextual problems that require calculating the area of triangles and parallelograms.

SPI 0506.4.2 Decompose irregular shapes to find perimeter and area.

Objective:

Students will gain experience with various math principles. This activity is designed for students who are already familiar with the mathematical concepts presented.

Materials:

- Chalkboard or dry erase board to work through problems in front of class
- Calculators for teacher and students
- Math with Louise Assessment Worksheet

Prep Time:

Approximately 10 minutes to familiarize yourself with the lesson plan.

Instructions:

1. Explain the following to the students:

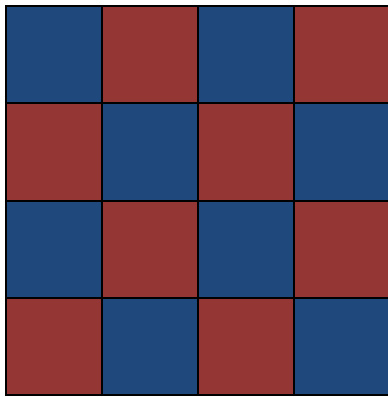
Louise Mott Miles was a home economics teacher who taught during the Great Depression. During the Great Depression, the stock market crashed, banks closed, and many people lost their jobs. Many people did not have enough money to buy food. Even Louise's school did not have the money to buy food for her home economics class. Instead, she would often bring food, such as eggs, from her family farm for her class to use to practice their cooking.

Tell students that today they will be solving problems that Louise likely would have faced in her home economics class.

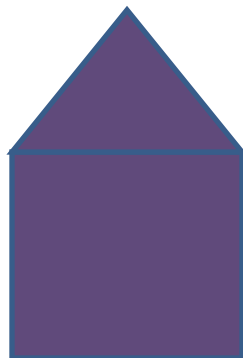
2. As a class, work through the following math problems. If it seems apparent that students are not having problems, you may wish to have them solve the problems on their own and then discuss the answers together.

1. Louise is having a big party, and needs to make all of her recipes bigger! Add the following problems to help with the math.
 - a. She needs to make more lemonade. If she originally put in $\frac{5}{14}$ of a cup and is now adding $\frac{15}{14}$ of a cup, how much sugar is in her lemonade total? $\frac{10}{7}$, or $1\frac{3}{7}$ cups
 - b. If she has $\frac{1}{3}$ of a cup, then adds $\frac{2}{3}$, how many cups does she have? 1 cup

- c. Louise needs to double her cake recipe. What is $\frac{24}{7}$ plus $\frac{24}{7}$? $\frac{48}{7}$ or $6\frac{6}{7}$
 - d. What is $\frac{31}{12}$ cups plus $\frac{5}{12}$ cups? 3 cups
 - e. What is $2\frac{1}{2}$ cups plus $1\frac{3}{5}$ cups? $\frac{41}{10}$ or $4\frac{1}{10}$ cups
 - f. What is $1\frac{3}{4}$ of a cup plus $1\frac{1}{4}$ of a cup? 3 cups
 - g. What is $2\frac{1}{2}$ cups plus $5\frac{1}{2}$ cups? 8 cups
2. Times are getting hard, and Louise needs to make her recipes smaller to save money. Help her with her subtraction.
- a. What is $\frac{11}{4}$ cups minus $\frac{9}{4}$ cups? $\frac{1}{2}$ cups
 - b. What is $\frac{21}{8}$ cups minus $\frac{13}{8}$ cups? 1 cup
 - c. What is $\frac{25}{8}$ cups minus $\frac{7}{8}$ cups? $\frac{9}{4}$ or $2\frac{1}{4}$ cups
 - d. What is $5\frac{2}{3}$ cups minus $1\frac{1}{3}$ cups? $\frac{13}{3}$ or $4\frac{1}{3}$ cups
 - e. What is $9\frac{2}{3}$ cups minus $3\frac{1}{3}$ cups? $\frac{19}{3}$ or $6\frac{1}{3}$ cups
 - f. What is $7\frac{2}{3}$ cups minus $1\frac{2}{3}$ cups? 6 cups



3. Shown above is a doll's quilt that Louise would like to make. Each side of each square is 5 inches long.
- a. What is the area of a single quilt square? 25 inches
 - b. What is the area of the entire quilt? 400 inches, or 33.3 feet
 - c. What is the area of all the red squares combined? 200 inches, or 16.6 feet
 - d. What is the area of all the blue squares combined? 200 inches, or 16.6 feet



4. Above is a shape that Louise wants to use on a quilt. The base of the triangle is 5 inches and it is 4 inches tall. The square has 5 inch sides.
- What is the area of the square? 25 inches
 - What is the area of the triangle? 10 inches
 - What is the area of the figure? 35 inches

Assessment:

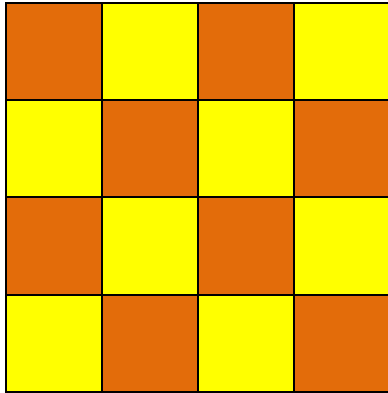
Have students fill out the Math with Louise worksheet.

Math with Louise

Instructions: Louise Mott Miles is busy with her home economics class, and doesn't have time to figure out all of these problems. Help with cooking and quilting, and show your work!

1. Louise put $\frac{17}{4}$ cups of flour in her cake, but her batter was too runny, so she added $\frac{1}{4}$ of a cup. How many cups of flour total are in her cake? _____
2. Louise is having a party, and needs to make more lemonade. She originally used $2\frac{1}{2}$ cups of sugar, and now she is adding $1\frac{1}{2}$ cups. How much sugar is in her lemonade?

3. Louise's school doesn't have enough money to make a big pot of spaghetti, so she has to cut the recipe back. What is $\frac{37}{15}$ teaspoons minus $\frac{29}{15}$ teaspoons? _____
4. Louise got her recipe confused and started using mixed measurements for flour. Now she doesn't know how much flour her students left to put in the brownies. What is $3\frac{2}{3}$ minus $2\frac{1}{6}$? _____



5. Above is a design for a quilt that Louise wants to make. Each side of each square is 14 inches long.
- What is the area of a single quilt square? _____
 - What is the area of the entire quilt? _____
 - What is the area of all the orange quilt squares combined? _____
 - What is the area of all the yellow quilt squares combined? _____



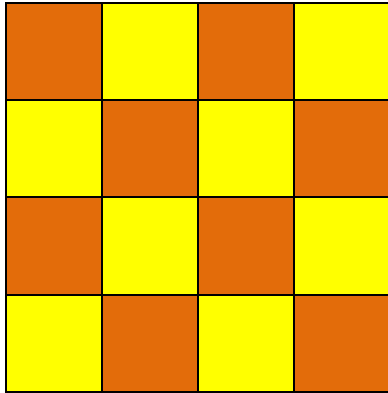
6. Above is a shape that Louise wants to put on a quilt. The sides of the square are 10 inches, and the triangles both have a height of 5 inches. What is the area of the shape?

Math with Louise

Answer Sheet

Instructions: Louise Mott Miles is busy with her home economics class, and doesn't have time to figure out all of these problems. Help with cooking and quilting, and show your work!

1. Louise put $\frac{17}{4}$ cups of flour in her cake, but her batter was too runny, so she added $\frac{1}{4}$ of a cup. How many cups of flour total are in her cake? $\frac{9}{2}$ or $4\frac{1}{2}$ cups
2. Louise is having a party, and needs to make more lemonade. She originally used $2\frac{1}{2}$ cups of sugar, and now she is adding $1\frac{1}{2}$ cups. How much sugar is in her lemonade?
4 cups
3. Louise's school doesn't have enough money to make a big pot of spaghetti, so she has to cut the recipe back. What is $\frac{37}{15}$ teaspoons minus $\frac{29}{15}$ teaspoons? $\frac{8}{15}$ teaspoons
4. Louise got her recipe confused and started using mixed measurements for flour. Now she doesn't know how much flour her students left to put in the brownies. What is $3\frac{2}{3}$ minus $2\frac{1}{6}$? $\frac{3}{2}$ or $1\frac{1}{2}$ cups



5. Above is a design for a quilt that Louise wants to make. Each side of each square is 14 inches long.
- What is the area of a single quilt square? 196 inches
 - What is the area of the entire quilt? 3136 inches
 - What is the area of all the orange quilt squares combined? 1568 inches
 - What is the area of all the yellow quilt squares combined? 1568 inches



6. Above is a shape that Louise wants to put on a quilt. The sides of the square are 10 inches, and the triangles both have a height of 5 inches. What is the area of the shape?
- 150 inches

Art and Memory

Tennessee State Curriculum Standards, Grade 5:

English/Language Arts:

GLE 0501.1.1 Demonstrate knowledge of Standard English usage, mechanics, and spelling.

GLE 0501.2.1 Continue to develop critical listening skills necessary for comprehension and task completion.

GLE 0501.2.2 Continue to develop strategies for expressing thoughts and ideas clearly and effectively.

GLE 0501.3.1 Write for a variety of purposes and to different audiences.

GLE 0501.3.2 Write in various modes and genres, including narration, literary response, personal expression, description, and imaginative.

GLE 0501.7.1 Recognize that media can be a source of information and entertainment.

Social Studies:

5.1.02 Discuss cultures and human patterns of places and regions of the world.

a. Explain how art, music, and literature reflected the times during which they were created.

5.5.tpi.7. Analyze primary sources not limited to but including artifacts, diaries, letters, photographs, art, documents, newspapers, contemporary media, and computer information systems to make generalizations about events and life in United States history since 1865.

Visual Arts:

2.5 Evaluate purpose in art.

2.6 Apply purpose in art.

2.7 Evaluate context in art.

2.8 Apply context in art.

2.5 Critique the perceived reasons for the creation of selected artwork using teacher-given guidelines.

2.6 Create works of art with an intended purpose or combination of purposes.

2.7 Critique the intended meaning of selected artwork using teacher-given guidelines.

2.8 Create works of art with intended meaning.

6.2 Compare and analyze connections between visual arts and disciplines outside the arts.

Objective:

Students will examine pages from the scrapbook of Louise Mott Miles and discuss what can be learned from her art. Students will then create their own collage reminiscent of Louise's scrapbook.

Materials:

- Scissors
- Glue
- Paper (preferably cardstock)
- Letter home to parents
- Additional magazines

- Photographs of Louise and her scrapbook
- Computer connected to a projector and screen

Prep Time:

15 minutes to gather materials, as well as sending the letter home to parents a week in advance.

Instructions:

1. Show students the photograph of Louise. Explain that she was a college student in the 1920s studying home economics. She used to glue letters, Valentines, cards, and photographs into the back of her college yearbook to form a scrapbook.
2. Have a discussion with students about what can be learned from examining the objects in Louise's scrapbook. What do we learn about her daily life? Her friends? The time period she was living in? What were her possible reasons for creating these scrapbooks?
3. Have students create their own collage similar to Louise's. It should reflect the student, their personality, their daily life, and also the time in which they are living.

Assessment:

Have students write a short essay in which they discuss what they learned about Louise, her life, and the 1920s from looking at her scrapbook. Then they should write about how their own collage reflects their life and current times. What could someone from the future learn by examining their collage?

Dear Parents:

Next week in class, we will be having a lesson on scrapbooks, art, and memory. Specifically, we will be learning how historical scrapbooks can be used as a source of information to learn about an individual's life and the era in which they were living.

As part of this project, I would like students to design their own scrapbook pages, but we need your help! Please assist your child in locating magazines, photographs, stamps, and other items from your home that they may use to design a collage. These items should reflect both the personality and interests of the student, as well as the current time in which we live. These items will be glued to paper, so please do not send any objects that you or your child will need in the future.

This lesson will take place on
assistance!

. Thank you in advance for your



lander



1 PRINCESS THEATRE
STUDENTS TICKET
OF MIDDLE TENN. STATE TEACHERS COLLEGE
(SIGN NAME HERE)
LOUISE BOTT SMYRNA
GOOD FOR STUDENTS ONLY

STATE TEACHERS COLLEGE
Foot Ball Season Ticket
1926
Name *Louise Bott*
Ogden College, Nov. 13
Murray S. T. C., Nov. 6
Huntsville College, Oct. 30
T. P. L., Oct. 16
Cumberland, Oct. 9

A 7 B 14
Adm. Rec. No. 14
EAST SIDE
DUDLEY FIELD
GOOD ONLY
THURSDAY
NOVEMBER 25
9261
TAX
EMPT
OUTH
D

A 7 B 15
Adm. Rec. No. 15
EAST SIDE
DUDLEY FIELD
GOOD ONLY
THURSDAY
NOVEMBER 25
9261
TAX
EMPT
OUTH
D



Louise Bott
1926

The Nashville, Chattanooga
SMYRNA, TENN.
Nashville
Read to the Carleton
Bureau regulations, etc.

UNION TRANSFER CO
Good for one continuous trip between stations selected for this day and
Return this receipt as evidence of fare paid, as it must be returned to us
when leaving car.
PAY AS YOU ENTER
RETURN RECEIPT UNFOLDED AS YOU LEAVE
VOID IF MORE THAN FOUR NOTICES ARE INDICATED
Patented, The Standard Mfg. Co., Cleveland, Ohio.
338134
TH NORTH
SOUTH
CASH
SS PASS
RE HALF FARE
ET C. TICKET
NASHV'LE
A UNA
KE LAVERGNE
HA SMYRNA
M'R'FREESBORO
TO M'R'FREESBORO
IA CHRISTINIA
LE FOSTERVILLE
M DEASON
E SHELBYVILLE
E NASHVILLE
D BRENTWOOD
N FRANKLIN
L THOMPSON STA.
L SPRING HILL
S MEAPOLIS
A COLUMBIA

Merry Christmas
Same old yarn
in BLACK
and
WHIT
Morgan
Morgan

[illegible]



Progressive Era Technology

Tennessee State Curriculum Standards, Grade 5:

English/Language Arts:

GLE 0501.1.1 Demonstrate knowledge of Standard English usage, mechanics, and spelling.

GLE 0501.2.1 Continue to develop critical listening skills necessary for comprehension and task completion.

GLE 0501.2.2 Continue to develop strategies for expressing thoughts and ideas clearly and effectively.

√0501.2.1 Listen attentively by facing the speaker, asking questions, and summarizing what is said.

√0501.2.2 Use established rules for polite conversation (e.g., do not interrupt, face the speaker, listen attentively, provide appropriate feedback, take turns,).

GLE 0501.3.1 Write for a variety of purposes and to different audiences.

Social Studies:

5.5.03 Understand the development of Industrial America.

b. Identify individual leaders of business and industry.

c. Explain how industry and mechanization changed ways of life in America and Tennessee.

Science:

GLE 0507.T/E.1

Describe how tools, technology, and inventions help to answer questions and solve problems.

GLE 0507.T/E.4

Recognize the connection between scientific advances, new knowledge, and the availability of new tools and technologies.

SPI 0507.T/E.1

Select a tool, technology, or invention that was used to solve a human problem.

SPI 0507.T/E.2

Recognize the connection between a scientific advance and the development of a new tool or technology.

Objective:

Students will learn about some of the technological advances that took place during the Progressive Era.

Materials:

- Projector and screen with internet access

Prep Time:

Approximately 10 minutes to queue photographs.

Instructions:

1. To introduce the lesson, play the following video for students:
School House Rock-Mother Necessity
<http://www.youtube.com/watch?v=gEGQUgWBQL4>

2. Show students the following photograph:
“Drives ancient ‘Lizzie’ to White House to show Henry Ford.”
<http://www.loc.gov/pictures/resource/hec.24503/>

Ask students if they know what it is a photograph of. Explain the following:

Henry Ford did not invent the automobile, but he is credited with building the first automobile that was inexpensive enough to be widely available. He cut production costs by mass producing them on assembly lines, and making them all with machine made, interchangeable parts, rather than hand-crafted pieces. This production style meant that cars could be produced much faster while needing fewer workers.

3. Show the students the following photograph:
“Reflections at night [on water] in the south gardens”
<http://www.loc.gov/pictures/resource/cph.3b25231/>

Ask students who Thomas Edison was. Explain that he is one of America’s most famous inventors, known as “The Wizard of Menlo Park” (Menlo Park was his laboratory in Menlo Park, New Jersey). Edison did not invent the light bulb, but he discovered a better wire to put inside the light bulb that would last much longer without burning out. He then started his own electric company and began the process of spreading electricity across the country and into people’s homes. He is also well known for inventing the phonograph, a device that recorded and reproduced sound recordings.

4. Show students the following photograph:
“Nicola Tesla”
<http://www.loc.gov/pictures/resource/ggbain.04851/>

Explain the following to students:

Nikola Tesla was an inventor from Croatia who later moved to America. When Edison was trying to spread electricity, he promoted using direct current (DC), which is where the current is sent straight down a wire from the power plant to your home. Other scientists, such as George Westinghouse, realized that alternating current (AC) was more efficient. (AC) is when the current is constantly switching back and forth-alternating-between travelling from the power plant to your home and travelling from your home to the power plant. This system requires fewer power plants producing electricity. Nikola Tesla invented a motor that produced alternating current, and Westinghouse bought the patent and used it to begin promoting AC. There was a heated battle with Edison and DC, but eventually AC won and is used in homes and businesses today. Tesla also designed a giant tower in New York, called Wardenclyffe Tower, which was built in 1901. With Wardenclyffe, Tesla would be able to supply wireless electricity to the entire world for free. The project had to be stopped, however, because of financial trouble, and the tower was destroyed in 1917. Show them the image of Wardenclyffe Tower.

5. Show students the following images:
“Woman at sewing machine in New York tailor shop on University Place near 11th Street”

<http://www.loc.gov/pictures/resource/fsa.8a21194/>

“Thurman Vacuum Cleaner”

<http://collections.mohistory.org/object/OBJ:1963+061+0001>

“Thurman Portable Vacuum Cleaner (1910)”

http://content.lib.washington.edu/cdm4/item_viewer.php?CISOROOT=/advert&CISOPT R=97

Ask students what they notice about these images. (If necessary, point out the foot treadle on the sewing machine, the hand crank on the first vacuum cleaner, and the fact that the second vacuum cleaner is electric.) Explain that the spread of electricity across the country made common household chores easier because appliances and gadgets could be made electric. Early sewing machines used a foot treadle. The first electric sewing machine was invented by Singer Sewing Company in 1889. Early vacuum cleaners, ran by a variety of methods. They might have been pumped by a bellows or operated by a hand crank, like the Thurman in the first photograph. Electric motors were added in the early 1900s. Electric refrigerators were also being designed in the 1920s, but many models cost nearly twice as much as a Ford Model T!

Assessment:

Have the students write a short essay explaining how electricity and modern light came to be. They should then address what kinds of effects the spread of electricity to households had on other inventions.



Fashion Revolution in the 1920s

Tennessee State Curriculum Standards, Grade 5:

Social Studies:

5.5.07 Understand the changing role of the United States between World War I and the Great Depression.

- a. Explain how American life changed dramatically due to the economy, technology, and ecological disasters.
- b. Describe American life in the 1920's including the impact of Constitutional amendments.

Science:

√0507.T/E.1

Explain how different inventions and technologies impact people and other living organisms.

English/Language Arts:

√0501.3.4

Write poems, stories, and essays based upon personal reflections, observations, and experiences.

√0501.3.5

Compare and contrast two persons, places, things, or ideas.

√0501.3.8

Compose and respond in writing to original questions and/or problems from all content areas.

Visual Arts:

2.2.1 Execute chosen elements in one's own artwork.

2.4.1 Execute chosen principles of design in one's own artwork.

3.1 Plan, design, and demonstrate subject matter, symbols, and ideas in one's art.

6.2 Compare and analyze connections between visual arts and disciplines outside the arts.

Objective:

Students will examine photographs of fashionable clothes from 1900-1930, and with guidance discuss how fashions changed and the reasons why.

Materials:

- Projector and screen with internet access
- Paper
- Scissors
- Crayons, markers, or colored pencils
- Paper doll templates

Prep Time:

Approximately 20 minutes to copy paper doll templates, gather materials, and queue internet images on projector screen. It is recommended to copy paper dolls on cardstock.

Instructions:

1. Explain to the students that they will be examining photographs and analyzing the clothing that the people in the photos are wearing.
2. Display the following webpages to the students, one by one. While each webpage is displayed, ask the students to briefly discuss what they notice about the clothing.
 - a. "George Washington Carver"
<http://www.loc.gov/pictures/resource/ppmsca.05633/>
 - b. "Sir Wilfred and Lady Laurier"
http://collectionsCanada.gc.ca/pam_archives/index.php?fuseaction=genitem.displayEcopies&lang=eng&rec_nbr=3193162&title=Sir+Wilfrid+and+Lady+Laurier+going+to+the+Parliamentary+luncheon%2C+Colonial+Conference.+Hon.+L.P.+Bordeur+in+the+background.+&ecopy=c033388&back_url=%28%29
 - c. "M. F. H. Valentine, Morrell, and Dohan"
<http://www.loc.gov/pictures/resource/cph.3a41346/>
 - d. "Street Style 1906:"
<http://rbkclocalstudies.wordpress.com/2012/03/29/street-style-1906-edward-linley-sambournes-fashion-blog/>
 - e. "Paris street style 1906:"
<http://rbkclocalstudies.wordpress.com/2012/05/10/paris-street-style-1906-linley-sambourne-goes-abroad/>
3. Next, display the following webpages, one by one, and ask the students again to briefly discuss what they notice about the clothing in each picture. Also ask them how this is different from the clothing in the first set of photographs.
 - a. "H9, Ronald Reagan in Dixon, Illinois. 1920s."
<http://www.reagan.utexas.edu/archives/photographs/large/h9.jpg>
 - b. "American oil men in the fields of Roumania."
<http://www.loc.gov/pictures/resource/cph.3b44606/>
 - c. "Group of men and woman in front of building."
http://digital.lib.uh.edu/cdm4/item_viewer.php?CISOROOT=/p15195coll17&CISOPTR=607&CISOBX=1&REC=9
 - d. "Group of eight standing amidst foliage."
http://digital.lib.uh.edu/cdm4/item_viewer.php?CISOROOT=/p15195coll17&CISOPTR=49&CISOBX=1&REC=17
 - e. "Fashion show at the Wells Shop"
<http://www.loc.gov/pictures/resource/cph.3c00047/>
 - f. "Evening gown in all its splendor"
<http://www.loc.gov/pictures/resource/cph.3c00835/>
 - g. "Five women from Winchester, Va. who will be maids of honor"
<http://www.loc.gov/pictures/resource/cph.3b39898/>
 - h. "1921-1940, Plate 030"
<http://cdm16028.contentdm.oclc.org/cdm/singleitem/collection/p15324coll12/id/11008/rec/30>
4. Tell students that the first set of pictures came from just after 1900, while the second set of pictures came from the 1920s. Ask students why fashion might have changed so drastically during this time. Show students the following photographs.
 - a. "Woman suffrage headquarters in Upper Euclid Avenue, Cleveland." (Note: This photograph depicts a proposed amendment to the Ohio Constitution, which is why

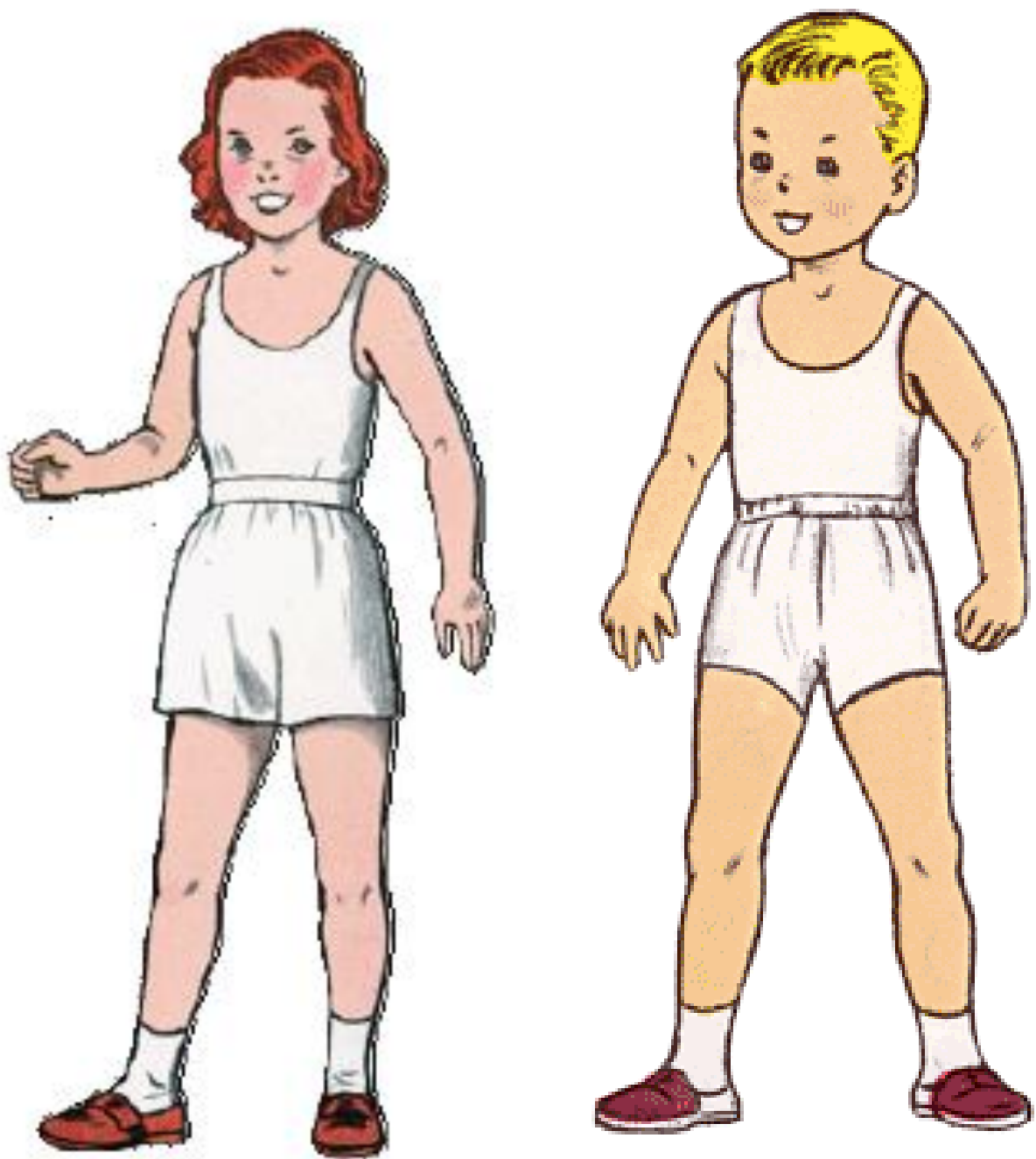
the sign reads “23rd Amendment” instead of “19th Amendment.”

<http://www.loc.gov/pictures/item/97500065/resource/>

- b. “Women’s Mounted Emergency Corps.”
<http://www.loc.gov/pictures/item/ggb2006000391/resource/>
 - c. “Interior of a Woolen Factory, Leicester, England.”
<http://www.loc.gov/pictures/resource/cph.3b39964/>
5. Explain the following to students:
- Clothing styles became freer and less restrictive during the 1920s for several reasons. World War I played a large factor. Women performed many wartime services while men were away (such as the aid groups and nursing). Men who had survived the war came home wanting to live life to the fullest, and chose more relaxed styles than they had previously worn. In addition, the nineteenth amendment, which ensured women the right to vote, was passed in 1920. This was another large step in women’s freedom, and these factors led to women shunning traditional ideas of dress. The idea of the assembly line was also perfected and popularized in the early 1900s, which meant that rather than one person working on an item from start to finish, several people would work on the same item, each performing one task. Clothing factories employed large numbers of people, and fashionable clothing was mass produced and made much more affordable, even to lower classes.
6. Pass out the paper dolls. Have the students make one outfit for the doll in the style of their choosing (Men’s 1900, Women’s 1900, Men’s 1920s, Women’s 1920s).

Assessment:

Have students write a short essay (based on notes they took in class) on what they have learned. They should include compare and contrast what fashions were popular both at the turn of the century and the 1920s, as well as offering examples for why those fashions changed so drastically. The paper doll outfits may also be used for assessment.



Girl Paper doll from Purple Kitty Yarns <http://www.purplekittyarns.com/paper-dolls/kathy-a-hobby-doll>
Boy Paper doll from Purple Kitty Yarns <http://www.purplekittyarns.com/paper-dolls/mariana-and-kim>