

The Industrial Revolution: Life in the Cities

Overview

Students will examine urban society and industry during the Industrial Revolution by participating in an experiential activity regarding factory life versus small businesses. Students will also examine images of factories during the Industrial Revolution and explore living conditions in city tenements. Students will then assume the role of an urban planning committee member and devise a City Improvement Plan for implementation in 1890.

Grade

8

North Carolina Essential Standards

- 8.H.1.1 - Construct charts, graphs, and historical narratives to explain particular events or issues.
- 8.H.1.3 - Use primary and secondary sources to interpret various historical perspectives.
- 8.H.1.4 - Use historical inquiry to evaluate the validity of sources used to construct historical narratives (e.g. formulate historical questions, gather data from a variety of sources, evaluate and interpret data and support interpretations with historical evidence).
- 8.H.1.5 - Analyze the relationship between historical context and decision-making.
- 8.H.3.1 - Explain how migration and immigration contributed to the development of North Carolina and the United States from colonization to contemporary times (e.g. westward movement, African slavery, Trail of Tears, the Great Migration and Ellis and Angel Island).
- 8.H.3.2 - Explain how changes brought about by technology and other innovations affected individuals and groups in North Carolina and the United States (e.g. advancements in transportation, communication networks and business practices).
- 8.H.3.3 - Explain how individuals and groups have influenced economic, political and social change in North Carolina and the United States.
- 8.H.3.4 - Compare historical and contemporary issues to understand continuity and change in the development of North Carolina and the United States.
- 8.G.1.3 - Explain how human and environmental interaction affected quality of life and settlement patterns in North Carolina and the United States (e.g. environmental disasters, infrastructure development, coastal restoration and alternative sources of energy).
- 8.E.1.1- Explain how conflict, cooperation, and competition influenced periods of economic growth and decline (e.g. economic depressions and recessions).

Essential Questions

- How did the assembly line change production in the United States?
- What technological advances occurred during the Industrial Revolution and how did such advances affect the US?
- What changes occurred in society based on inventions created during the Industrial Revolution?
- What were conditions like in factories during the Industrial Revolution?
- What were the roles of women and children in the work place?
- How did life in the cities compare and contrast to life on farms?
- What were living conditions like in cities, specifically in tenements?
- What forms of progress were initiated to improve living and working conditions in cities?

- What limitations were imposed on company owners to impede the formation of monopolies and also to protect workers?
- What contributions did immigrants make to America during the Industrial Revolution?
- How does immigration today compare and contrast to immigration in the late 1800s?

Materials

- Items for assembly line versus hand-crafted experiential activity:
 - Handmade Group sign and instructions, attached
 - Factory Group sign, instructions and individual roles, attached
 - Supplies for creating “Happy Grams” for both groups: pencils, scissors, glue sticks, white paper, colored paper, magic markers, and a circle template
- Textbook reading on the Industrial Revolution or computers with internet access
- The Rise of Industry in the United States, worksheet and answer key attached
- Preliminary Observations, handout attached
- Images of City Work, attached
- Images of a NYC Tenement, attached
- Urban Planning in 1890, group assignment attached
- Common Myths About Undocumented Immigrants, article attached
- Top Secret Mission, project attached

Duration

Two (or more) 60-minute periods

Procedure

Day 1

Assembly Line versus Hand-Crafted Experiential Activity

1. As a warm-up, project the following questions for students to respond to in writing:
 - During the late 1800s, our nation was in the midst of an Industrial Revolution. This was a time of great and rapid changes, when people switched from making goods by hand to manufacturing goods with power driven machines. Form a **hypothesis**: How did the assembly line change production in the United States?
2. After students have recorded their hypothesis, tell them they will participate in an experiment in which they learn about the rise of industry in America after the Civil War.
2. Divide students into the following groups, passing out the appropriate attached instructions and materials:
 - **Factory Group**: This large group should consist of a Foreman, Assistant Foreman, and depending on your class size, 8-10 assembly line workers.
 - Teachers should do their best to make the “Factory Group” as uncomfortable as possible in order to have students experience poor working conditions. Arrange all assembly line workers into as small a space as possible (i.e. squeeze desks together into one particular area of the room). If possible, darken their work space (for example, place them far away from any windows, or turn off the lights and only provide the hand-made group with a lamp). You may also want to play a sound track of factory or work noise. The Foreman and Assistant Foreman will also be valuable in making the factory unpleasant to work in.
 - Provide these students with the attached “Factory Group” roles (note that each member of the factory group has a separate role) and the following Happy Gram supplies:
 - 2 pencils

- 3 pairs of scissors
 - 2 Glue sticks
 - White paper
 - Colored paper
 - 2 magic markers
 - Circle template
 - “Happy Grams Incorporated” sign (attached); students should hang this by their area
 - After students have read their roles, review the following instructions:
 - You are a factory that produces a very popular product of the early 1900s...Happy Grams! Happy Grams must be on a folded white piece of paper. On the front of the card, a colored circle must be cut out and glued on. A happy face must be drawn on the circle, and the inside of the card must say “Don’t Worry! Be Happy!” (Teachers may want to post these requirements on the board where all groups can see). You have 10 minutes to make the most Happy Grams you can possibly make on your assembly line while following the instructions provided in the role assigned to you.
 - **Small Shop/Hand-made Group:** Divide the remainder of your students into small groups of 5-6.
 - The set up of the hand-made groups should be the opposite of the factory group. Arrange these students comfortably, perhaps in a roomy circle by a window. Teachers may want to play a classical music CD softly by this group to “inspire” the artisans at work.
 - Provide these students with the attached “Hand-Made Group” roles (all group members receive the same instructions) and the following Happy Gram supplies:
 - 1 pencil
 - 1 pair of scissors
 - 1 glue stick
 - White paper
 - Colored paper
 - 1 magic marker
 - Circle template
 - “Hand-made Happy Grams” sign (attached); students should hang this by their area
 - After students have read their instructions, review the following:
 - Your groups also make the very popular 1900s Happy Grams, but you all work in small artisan shops, where every single card is unique and hand-made. Your Happy Grams must also be on a folded white piece of paper. On the front of the card, a colored circle must be cut out and glued on. A happy face must be drawn on the circle, and the inside of the card must say “Don’t Worry! Be Happy!” You have 10 minutes to make the most artistic Happy Grams you can possibly make as individual artists working in the same small business.
 - **Observation Group (optional):** Teachers may want to assign a small group of students to float between the various groups and observe any similarities and differences between life in the factory and life in hand-made shops.
4. Allow students to ask questions, and then instruct them to take their places, assume their roles, and begin. As the groups work, assist in adding to the desired experience of both the factory group (i.e. help with yelling at workers or applying pressure on the foreman to do so).
 5. At some point towards the end of the simulation do the following:
 - Tell Worker 3 to pretend that his/her hand has been severely injured in the machinery.
 - Give Worker 8 the signal to begin trying to organize a worker’s rebellion.

Debriefing the Assembly Line versus Hand-Crafted Experiential Activity

6. Once time is up, have one person from each group stack the completed cards and bring them to the front. Tell students it is time to analyze the evidence and evaluate their initial hypothesis. Count the number of cards created while examining them for quality. Most likely, the group using the assembly line style will have produced more cards than those that were created by hand, but those created by hand will hopefully appear higher in quality. Discuss with students:
- Go back to your original hypothesis on how the assembly line changed production in the US. Was your hypothesis viable? Explain.
 - Compare and contrast products made on an assembly line versus products made by hand. Do you notice any differences in the Happy Grams created by hand and those created on the assembly line? (Hopefully, the handmade Happy Grams will be a bit more original and neater than those rushed down the line of students. Facilitate discussion of the fact that hand made items are more unique and special, they have more care put into them, they are higher quality, etc.; where as items made by assembly lines have no unique value and can often have mistakes.)
 - Between an item created off an assembly line and an item handmade, which would you guess is more expensive and why? (*Handmade is typically more since it is original, takes longer to create, it is produced by a smaller business, etc.*) Would you rather pay more for an original handmade item, or less for an assembly line item? Why?
 - Why is the assembly line style of production faster? What are other benefits of an assembly line/factory style of production? (*cheaper prices, more items for consumer purchase, more jobs, etc.*) What are the benefits of a hand-made item from a smaller business? (*unique, original, better quality, working conditions are generally better, etc.*)
 - Those of you in the factory, what was this experience like? What were working conditions like for you? What about those of you in the small shops...what were working conditions like for you? What do you think conditions in actual factories were like?
 - What happened in the factory when one of our workers was injured?
 - What types of rules and regulations did factories have to follow when they were first created? (none!)
 - Worker # 6, how old were you? (9) Is a 9 year old legally allowed to work in America today?
 - What types of rules and regulations eventually developed regarding workers? (*insurance, workers compensation, laws regarding hours and ages of workers, etc.*) How do you think this changed life in the factories?
 - Those of you in the factory, what did Worker 8 try to do towards the end of the simulation? What might this symbolize? (*formation of labor unions*) How did labor unions affect factory life?
 - How do you predict the assembly line will affect the economy of the United States? (*Facilitate discussion that assembly lines will lead to a higher rate of production, thus there are more items for purchase.*)
 - What effect did mass production have on society? (*job market, environment, quality of life*)
 - Does anyone know when the assembly line was first created? (*Discuss how **Eli Whitney**, the same man who invented the **cotton gin**, also invented **interchangeable parts-machines** that would turn out parts that would fit in one item being produced just as easily as the next. Henry Ford then developed this idea into the **assembly line** in the early 1900's and built automobile factories centered around this type of production.*)

Introduction to the Industrial Revolution

6. Explain to students that in the years after the Civil War and into the 1900s, inventions such as the assembly line and other machines and processes caused a revolution in the way many Americans lived and worked. Assign a reading on the **Industrial Revolution** from students' textbooks and handout the attached reading notes for students to fill in as they read. (Alternatively, if internet access is available for students, they can be instructed to work together in partners and find the answers on line. Teachers can likewise present the information in a mini-lecture and have students fill in the worksheet.)

7. Once students are finished, discuss as a class:
 - In what ways can you connect some of the technological advancements you read about to one another? (*The teacher is looking for answers such as railroads and steel since the steel is used to build trains and tracks; oil and the automobile, since oil is eventually used to power the car; inventions like the telephone and radio serve to advertise all of the new things created in assembly line factories, etc.*)
 - How would the **transcontinental railroad** affect the United States?
 - In what ways did the inventions you read about change the way people lived? In what ways would these inventions affect society? (*Ensure students consider the positive and the negative aspects.*)
 - What do you imagine it takes to be an inventor such as those you read about? What characteristics might an inventor possess?
 - Choose one invention you read about and imagine your life without it. How would your life change? How would society as a whole change? What would be negative about such changes? What might be positive about such changes?
7. Explain to students that as industry took hold, the nation and economy slowly struggled out of the slump it had suffered through during the Civil War. Inventions such as the assembly line lead to a rise in factories, and those factories worked to churn out new inventions such as the telephones and phonographs. Life across America began to change. A notable change was the number of people that flocked to large cities to find various jobs. Some young women and men left their farming lives in America's **rural** areas and sought job opportunities in factories. There was also an influx of **immigrants** (people who leave their county to settle in another) who ventured to America's factories and mines from countries around the world.

Immigrants During the Industrial Revolution

8. Explain to students that they will spend some time making some preliminary observations of jobs during the Industrial Revolution and the people who performed them by examining various images that have been posted around the room.
 - **Teacher note:** See the attached *Images of City Work*. There are 10 images attached that should be copied and posted around the room before class convenes. More images can be found via an internet search if desired. If you use all of the 10 attached, divide your students up into 10 partners/small groups.
9. Give each student a copy of the attached "Preliminary Observations" handout. Instruct students that each partner/small group will start at the image you assign them to. They will have a few minutes to examine the image, discuss, and write their impressions. The teacher will make a signal (ring a bell or flash the lights) at which point all partners will travel clockwise to the next image and repeat the process. Teachers can choose how many images they want students to view. If viewing all 10, teachers should copy the attached worksheet front/back so that there are 10 rows for observations.
10. Once students have examined the images, have them take their seats and discuss:
 - What image struck you the most and why? (*Allow students to share their initial observations about a photo of their choice.*)
 - Based on the photos you examined, who was working in factories during the Industrial Revolution? What ages do you think the workers were? Based on these images, how do you imagine your life as a teenager would be different during the Industrial Revolution? How was life different for women during this time period?
 - **Children:** While families may have moved to cities with high hopes of earning a living, they soon found that to survive at even the lowest level of poverty, families had to have every able member of

the family working. This led to the high rise in child labor in factories. Children were not treated well, and were overworked and underpaid for a long time before anyone tried to change things for them. Whereas there are laws today that govern the age a worker must be, as well as the type and amount of work that workers can perform, no such rules and regulations existed during the 1800s. Thus, rather than attending schools, many children as young as 6 years old were working full days in unsafe factory conditions.

- **Women:** The late 1800s created job opportunities for women as several of the images show. However, women had not yet won equal rights. Women were often required to turn their wages over to their father or husband. Women had few laws to protect them and weren't allowed to vote until 1919 and later.
- Based on the photos you examined, what dangers may exist in factory life? How would you characterize the working conditions overall? What evidence leads you to this conclusion?
- What is your overall first impression of factory work during the Industrial Revolution?

➤ **Teacher Note:** If your class has studied sharecropping (and/or has completed the

➤

➤ Carolina K-12's lesson *Sharecropping in North Carolina or North Carolina*) also discuss:

- How do these images of factory life compare and contrast to the images of sharecropping and farm life we viewed previously?
- If you were your age living during the early 1900s, would you rather live the life of a sharecropper or a factory worker? Why?

10. For homework, assign a textbook or internet reading that focuses on **tenements**, working conditions, and developments that came about during this period (**city services**, **labor unions**, etc.), such as <http://www.history.com/topics/tenements>. LEARN NC's chapter, "Cities and Industries," offers additional readings with a North Carolina focus.

Day 2

Life in Tenements

11. As warm-up, project the attached *Images of a NYC Tenement*. Tell students to examine the images and based on what they see and what they read last night to write a first person account of life living in a tenement and working in a factory during the Industrial Revolution. Tell them to consider in their writing:
- Who are you? Where did you move here from? How old are you?
 - How do you spend each day and night? Describe the conditions that you live and work in.
 - What things do you see, hear, smell, think, etc.
 - What are your hopes, fears, dreams, etc.?
 - Why do you continue to live and work where you do? What keeps you going?
12. As students work, give them a two-minute warning before time is up, during which they should review and edit their writing. Next, solicit volunteers to share their writing and discuss:
- What were working conditions like in factories? (*Discuss how conditions were often unhealthy. Air quality was low, light was poor since many factories had few windows, and the work was dangerous. Workdays could last anywhere between 10 or more hours long six-seven days a week. Workers could be killed or injured on the job, whether from unsafe equipment or exhaustion, yet there were no safety rules or laws for employee assistance.*)
 - How did workers eventually advocate for their rights during the Industrial Revolution? (*Discuss how they formed **labor unions** in which employees banded together to receive higher wages and better working conditions.*)

- What types of improvements have been made for employee safety since the Industrial Revolution? (*Discuss things like workers compensation, child labor laws, insurance coverage, overtime requirements, unions, etc.*) What problems do you think face factory workers in today's society?
- How would you characterize a **tenement**? What were living conditions typically like?
- With conditions being so poor, why did so many immigrant families live in tenements? (*Discuss how many people simply had no other option; also cities were overcrowded and there was no room for more housing to be built, especially affordable housing.*)
- In what ways did active citizens try and help those living in tenements? (*Discuss **Jane Addams** and her creation of **settlement houses**, centers in which tenement residents could come for classes, participation in clubs, and babysitting.*)
- While many factory workers were struggling just to make ends meet, several companies were growing to giant sizes in the late 1800s. An example was Rockefeller's Standard Oil. These companies were considered **monopolies**. What was a monopoly, and why did Congress pass the **Sherman Antitrust Act** to make monopolies illegal?
- What services did cities begin to provide to tackle over crowding? (*Discuss the creation of skyscrapers, developed so that more space could be created by building upwards; water reservoirs and piping systems were built; firefighters were hired; police officers were hired; public transportation was set up; etc.*)

Urban Planning Activity

13. Tell students they must now apply their understanding of city life and problems during the early years of the Industrial Revolution. Divide students into small groups of 3-4 and handout the attached *Urban Planning in 1890*. Go over the following instructions with students while they follow along on their handouts:
 - The year is 1890. Your group represents the first Urban Planning Committee for New York City. Given the issues the city is facing such as those listed below and beyond, what can you do to improve life in the city? You and your group must come up with a City Improvement Plan.
 - 1) Brainstorm the most pressing problems faced in cities during the Industrial Revolution.
 - 2) Consider the various ways you can realistically address those problems. Keep in mind, many of the systems in place in your own city today were not yet created in the 1800s.
 - 3) Create a City Improvement Plan in which you list goals for city improvement and how you plan to accomplish those goals.
 - For example:
 - **Goal 1** : Create a water utilities system.
 - **Step 1**: Build 3 large reservoirs outside of the city.
 - **Step 2**: Construct a system of pipes that lead into the city that service homes, apartments, offices, factories, etc.
 - **Step 3**: Set up a billing system and charge a fee for the amount of water used.
 - Your plan must have at least five goals. Each goal should have at least two steps on how to accomplish it. Be prepared to pitch your City Improvement Plan to the remainder of class. We will vote on the best plan once everyone has shared.
14. Once students have finished their plans, go over respectful audience member expectations and allow each group to present their plan to class. Allow other groups to ask follow-up questions and discuss. Encourage students to take notes throughout each presentation and at the end of class, allow students to vote on which plan they believe would be most effective and why. Students can also discuss which aspects of which plans they believe would be most effective, and create a compiled class.
15. **Optional homework assignment:** Instruct students to create a list of twenty things they do on a typical day from the moment they wake up to the moment they go to bed. For example:
 - Wake up to my alarm clock, hit snooze, get out of bed 10 minutes later.

- Take a shower, brush my teeth, get dressed.
- Eat breakfast.
- Catch the bus at 6:50 AM.

16. The following day, partner students up and have them go through their lists together. At each step, tell students to write down what governmental service or regulation that step involves. For example, the alarm clock going off needed electricity, and electric infrastructures are provided by municipalities. The water in the shower is supplied and protected by regulations by both city and county government. If internet access is available, refer students to online “Local Government in North Carolina” website, which explains various services and how government is involved in providing or regulating them:

http://www.civics.unc.edu/ncccm/educators/ignc3_chapters/2008628_04LocalGovtNC3_CH4_MedRes1.pdf.

Once finished, have students consider the difference in life during the Industrial Revolution when most of these services were not provided. Encourage students to think about how their lives may be different if just one local governmental service was taken away (i.e. trash collection).

Culminating Activities

- Assign the attached *Top Secret Mission* project as an individual or partner assignment.
- Assign the Carolina K-12’s Project *The Industrial Revolution and Beyond: Create a Living Museum* (available in the Database of Civic Resources or by e-mailing CarolinaK12@unc.edu)
- Compare and contrast immigration today to immigration during the Industrial Revolution. *Have students read the attached article from NCLR: Common Myths About Undocumented Immigrants.* Either in writing or as a discussion, have students respond to:
 - Do any of you know anything about your **ancestry**? Did any of your families immigrate to America during the 1800s-1900s? (It is important for students to understand that unless they are from Native American ancestry, someone in their family immigrated to this country or were brought to this country by force at some point. Encourage students to discuss their ancestry with family members to see if they can discover anything about their family’s beginnings in America.)
 - What contributions did immigrants make to America during the Industrial Revolution? (Discuss with students how immigrants aided the American economy, helped to build an “American” way of life, risked their lives by performing dangerous factory work, etc.)
 - Do you think the way immigrants were viewed in the late 1800s-early 1900s was similar or different to today? Explain.
 - What **stereotypes** exist about immigrants coming to America today? Why do you think people stereotype and **discriminate** against people who are from different cultures, races, ethnicities, etc. than their own?
 - Did you find anything surprising about the article that you read? Explain.
 - Why do you think such myths regarding immigrants exist today? What can we do as citizens to ensure we are not spreading myths, or being stereotypical of others?

Hand-Made Group

Sign:



Welcome to Hand Made Happy Grams!



Instructions for Hand-Made Happy Gram Group:

Your group represents a small, independently owned and operated business, called Hand-Made Happy Grams. You pride yourselves on creating each Happy Gram by hand, with each being unique, original, and created by one artist. While other Happy Gram businesses may rush to produce just any old Happy Gram, you firmly believe in quality over quantity. Each of you will work today creating happy grams individually so that each is unique. Feel free to add any extra artistic creativity to each card you produce.



Factory Group

Sign:



Welcome to Happy Grams Incorporated



Roles for Factory Group

Foreman

You are in charge of the production of Happy Grams for a large factory corporation, called Happy Grams Inc. As a factory, you make all Happy Grams via an assembly line. As a Foreman, it is your responsibility to insure your factory produces more Happy Grams than any other factory in your city. You must push your workers to their limit, making sure they work as fast as they can. Because of this, there is no time for niceties. You have found that constantly putting pressure on your workers is the best way to motivate them, and you are not known to be calm or kind. If anyone is slow, sick, or injured, you show no sympathy. They can either work or be fired as far as you are concerned. If you don't get your workers producing 100 Happy Grams every 10 minutes, you will lose your job, and then your family would be out of food and a home.

Your job is to walk around and supervise all of the workers, doing what ever it takes (yelling, threatening to fire them, hovering over their shoulder, frightening them, etc.) to ensure they work fast and hard each day on the assembly line. You also have an Assistant Foreman who is available to help you in your supervision of the factory. He/she should give you constant updates on each worker and how they can improve.



Assistant Foreman

You are second in charge of the production of Happy Grams for a large factory corporation, called Happy Grams Inc. As a factory, you make all Happy Grams via an assembly line. As an Assistant Foreman, it is your responsibility to help the Foreman insure your factory produces more Happy Grams than any other factory in your city. You must help the Foreman push your workers to their limit, making sure they work as fast as they can. Because of this, there is no time for niceties. It is your job to constantly give the Foreman updates on how the workers are doing, how they could work faster, and which workers need to be reprimanded for working too slow. You have found that constantly putting pressure on the workers is the best way to motivate them, and neither you nor the Foreman is known to be calm or kind. If you don't get your workers producing 100 Happy Grams every 10 minutes, the Foreman could fire you, and then your family of 8 would be out of food and a home.

Your job is to walk around and supervise all of the workers along with the Foreman, reporting to the Foreman on any worker that makes the tiniest of error or slows down production in anyway. You also have the right to address workers on the line with whatever it takes to motivate them (threats, yelling, leering, etc.)

Factory Group (cont.)



Worker 1

You are an immigrant from Germany and have only been in America for three weeks. Your English is very poor, thus you felt incredibly lucky to receive a job working at Happy Grams Inc. With such an influx of immigrants, there are said to be very few jobs available right now. You must do whatever it takes to work your hardest and keep your job. Since your father became very ill on the boat over, you are now the sole money maker and you are terrified of being fired. Without your income, your father won't be able to receive the medical treatment he needs.

Your job at the factory (along with one other worker) is to trace the colored circles for the Happy Gram faces and pass them down the line for being cut out. Trace as many as you can, as well as you can and as quickly as you can...and watch out for the Foreman and Assistant Foreman!



Worker 2

You are an immigrant from Great Britain and came to America one year ago looking to start a new life in the land of opportunity. Unfortunately, you have had a hard time since arriving. You caught pneumonia on the boat ride over, and have been sick with different chest colds since. While you don't feel well, and cough constantly, you must continue to work as hard as you can at the Happy Gram factory so that your family is provided for. Even though your body aches and the Foreman is constantly yelling, you continue to work to get the job done.

Your job at the factory (along with one other worker) is to trace the colored circles for the Happy Gram faces and pass them down the line for being cut out. Trace as many as you can, as well as you can and as quickly as you can, and don't make the Foreman angry!



Worker 3

You are an immigrant from Poland who has been working at the Happy Gram factory for three months. You have learned to ignore the rudeness of the Foreman, and pretty much keep to yourself on the assembly line. Your job is a bit stressful since you work 12 hour days dealing with dangerous equipment. Your job on the assembly line is the most dangerous in fact, since you are working with sharp machinery (scissors). It is important you stay very quiet and be careful...you have heard rumors that when people are hurt badly on the job, they are let go with no pay and no help whatsoever.

Your responsibility (along with two other people) is to cut out the traced circles that are passed to you. You will then hand them down the line and someone else will glue them on the front of the Happy Grams.



Worker 4

You are an immigrant from Norway and today is your first day on the job at the Happy Gram factory. You are nervous about the job since you have heard that the Foreman and Assistant Foreman are very mean to the workers. However, your family is living in a terrible, run down tenement and the only way you can get them out of it is to save enough money for a nicer place. You need this job, and will do whatever it takes to keep it...even if it means putting up with mean bosses.

Your responsibility (along with two other people) is to cut out the traced circles that are passed to you. You will then hand them down the line and someone else will glue them on the front of the Happy Grams.



Worker 5

You are an immigrant from Poland. You have quite a dangerous job on the assembly line since you are working with sharp machinery (scissors). You don't mind this, since you feel if anyone were hurt you could help. You are actually working at the factory to save enough money to go to school and be a doctor. You are passionate about helping others and are determined to keep this job and raise enough money so that you can leave it behind for better things.

Your responsibility (along with two other people) is to cut out the traced circles that are passed to you. You will then hand them down the line and someone else will glue them on the front of the Happy Grams.



Factory Group (cont.)



Worker 6

You are an immigrant from Russia. You are the youngest worker at the factory at 9 years old. You don't like working here, and the Foreman and Assistant Foreman scare you and often make you cry. However, your parents told you that you have to help the family raise money, otherwise your little brothers and sisters will go hungry.

Your job on the assembly line (along with one other person) is to fold the pieces of white paper into a card, then glue the colored circle on the front of the card. You then pass it down the line for someone to draw the face and text on the card.



Worker 7

You have been working at the Happy Gram factory for one month, but not by choice. You really want to work at the Ford plant, but they aren't hiring. You hate your job and you hate the sniffing kid that works beside you. You like it when the Foreman yells at the kid. As for you however, you really want to punch the Foreman's lights out when you get yelled at. However, you can't afford to lose your job. So you keep your mouth shut, your face in a frown, and do your work.

Your job on the assembly line (along with the kid) is to fold the pieces of white paper into a card, then glue the colored circle on the front of the card. You then pass it down the line for someone to draw the face and text on the card.



Worker 8

You have been living and working in the city since you left your families farm in North Carolina a year ago. You thought that you would find life in a factory to be easier than the back breaking work of farm life. Your job on the assembly line isn't difficult. **You are responsible for putting the finishing touches on the Happy Grams your factory creates. You draw the eyes, nose, and smile onto the colored circle that has been pasted on the front of the Happy Gram. Then, you write "Don't Worry, Be Happy" on the inside of the Happy Gram. At this point you stack it in the finished pile.**

That's all easy enough, but the Foreman is a real jerk, and the Assistant seems to be just as bad. Today, you are not in the mood to take any junk from anyone. You figure you can always head back to the farm in North Carolina and work for your dad if you need to. You have also been thinking about how if you and all the factory workers stuck together, things could change around here. If you all quit, there would be no one to run the factory! Besides, you are the only person with the job of drawing the final touches onto the Happy Grams. Be prepared to try and organize your fellow assembly line employees to stand up to the Foreman today. *(Your teacher will give you the signal of when to try and organize others.)*



The Rise of Industry in the United States

<p>The Transcontinental Railroad</p> <p>Summary:</p> <p>Effect on American society:</p>	<p>Andrew Carnegie & the Steel Industry</p> <p>Summary:</p> <p>Effect on American society:</p>	<p>JD Rockefeller and the Oil Industry</p> <p>Summary:</p> <p>Effect on American society:</p>
<p>Alexander Graham Bell</p> <p>Summary:</p> <p>Effect on American society:</p>	<p>Thomas Alva Edison</p> <p>Summary:</p> <p>Effect on American society:</p>	<p>Henry Ford and the Assembly Line</p> <p>Summary:</p> <p>Effect on American society:</p>

The Rise of Industry in the United States-ANSWER KEY

<p style="text-align: center;">The Transcontinental Railroad</p> <p>Summary: In 1862, Congress gave two railroad companies the money and land needed to help them build a transcontinental railroad. The Union Pacific Railroad would start near Omaha, Nebraska and move West and the Central Pacific would start in Sacramento, California and move East. On May 10, 1869, the nation celebrated as the two tracks were connected at Promontory Point, Utah after a long and arduous construction process. Many immigrants were instrumental in building the railroad.</p> <p>Effect on American society: With railroad lines linking all parts of the country, raw materials could easily be carried from the countryside to factories in the cities as distant from each other as Sacramento and Boston, allowing people from across the country to trade with each other. This new connection helped foster the growth of other industries.</p>	<p style="text-align: center;">Andrew Carnegie & the Steel Industry</p> <p>Summary: During the Industrial Revolution, the steel industry grew quickly to keep up with the demand of the railroad companies and other manufacturing companies for this tough and inexpensive new metal. Scottish immigrant, Andrew Carnegie and some business partners set up their own steel companies. In the 1870s, Carnegie built the most up-to-date steel mill in the world. Using the Bessemer process, Carnegie was able to produce the steel at a low cost, which made the product available to a greater number of manufacturers. Carnegie eventually amassed a great fortune.</p> <p>Effect on American society: Steel was very important to the growth of American industry. Because it was tougher, cheaper, and easier to shape than iron ore, steel was used in the construction of railroads, bridges, locomotives, factory machines, buildings, and many other things.</p>	<p style="text-align: center;">JD Rockefeller and the Oil Industry</p> <p>Summary: In the 1860s, workers drilling for salt water in Western Pennsylvania came across an oily substance. Yale professor, Benjamin Silliman Jr., discovered that this new substance had many uses like lighting lamps and greasing machinery. Many people began drilling for oil and in 1859, Edwin L. Drake drilled the first successful oil well in Titusville, Pennsylvania. Ohio businessman, John D. Rockefeller, purchased and organized the Standard Oil Company to refine crude oil into a finished product. He eventually controlled 90% of the refining industry and made a fortune.</p> <p>Effect on American society: Oil was one of the most important discoveries in the history of American industry. When it was first discovered, it was used in the form of kerosene to light lamps and as grease to lubricate machinery. Today, it is still the nation's top source of energy.</p>
<p style="text-align: center;">Alexander Graham Bell</p> <p>Summary: While working with hearing-impaired children, Alexander Graham Bell decided to invent a machine that would let one person talk to another person who was far away. In 1876, Bell invented the telephone. Though people were at first skeptical of Bell's invention, Bell set up a company that developed a nationwide network of phones. By 1900, ¾ of America's small farmers had a telephone and a whole new system of communication was set up across the nation and before long, the entire world.</p> <p>Effect on American society: Alexander Graham Bell's invention, the telephone, revolutionized modern communications by allowing people to communicate with others who were very far away, which proved important to businesses, individuals, and the government alike.</p>	<p style="text-align: center;">Thomas Alva Edison</p> <p>Summary: Thomas Alva Edison is known as the most productive inventor of the late 1800s. For all of his inventions, Edison obtained patents, which are documents that legally protect inventors from having their inventions copied by others. Edison took out 1093 patents, more than anyone else in U.S. history and came to be known as the Wizard of Menlo Park because he invented so many things and because his laboratory was in Menlo Park, New Jersey.</p> <p>Effect on American society: Edison's goal was to invent useful things and he succeeded. His inventions- including the phonograph, motion picture camera, light bulb, and the electric power plant- started many new and important industries.</p>	<p style="text-align: center;">Henry Ford and the Assembly Line</p> <p>Summary: In 1903, an inventor in Detroit, Michigan, completed the machine that would run on its own power. Ford called his invention the quadricycle, meaning four-wheeled vehicle, but today it is known as the car. It ran on gasoline, which is a byproduct of oil. Ford wanted to produce as many cars as possible, so he set up an automobile factory, where he used Eli Whitney's idea of interchangeable parts to build machines to make car parts that fit as well on one car as on another. Ford even expanded upon Whitney's ideas by having each worker place a single part on the frame of a car as it passed by on a moving belt, or assembly line to complete the car.</p> <p>Effect on American society: Ford's invention, the car, transformed the way people travel by making it easier and faster to get from place to place. His new way of making cars, the assembly line, changed manufacturing by making it much more efficient and therefore, more profitable.</p>

Images of City Work

Image 1



North Carolina Image: Haw River Mills in Alamance County.

Image 2

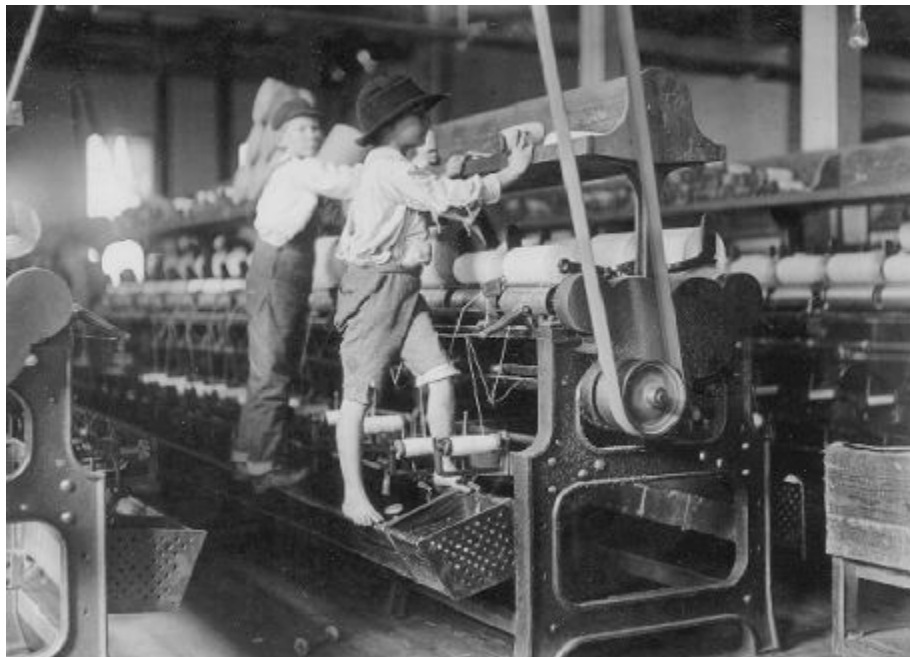


Image 3



**North Carolina Image: Men opening bales of cotton at the White Oak Mill in Greensboro, North Carolina, 1907. This was one of the few cotton mill jobs available to African Americans. Courtesy of the National Museum of American History.*

Image 4



Image 5



Image 6

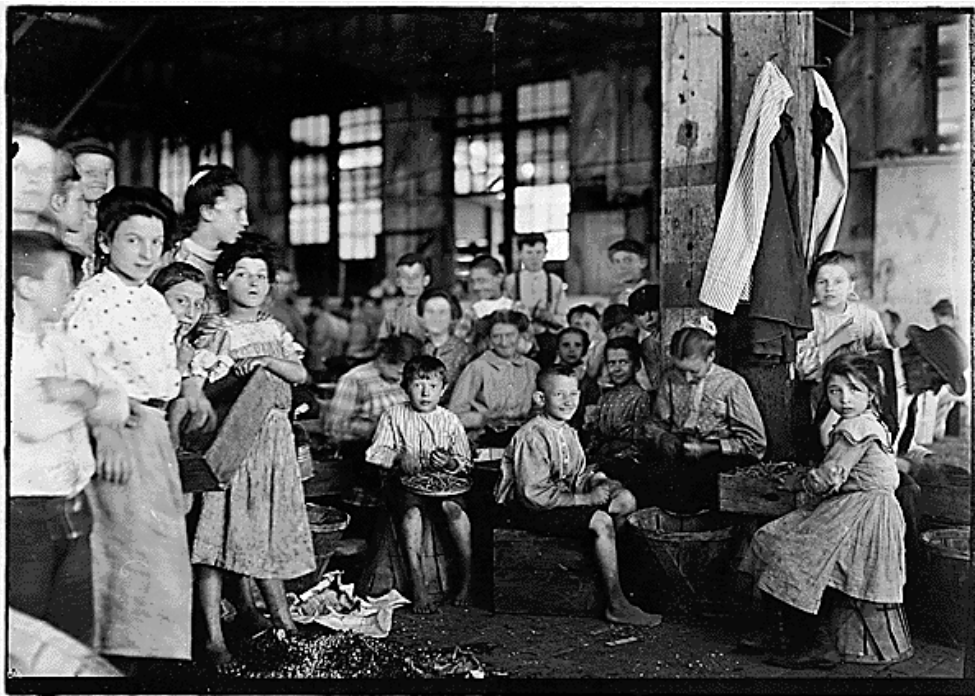


Image 7



Image 8

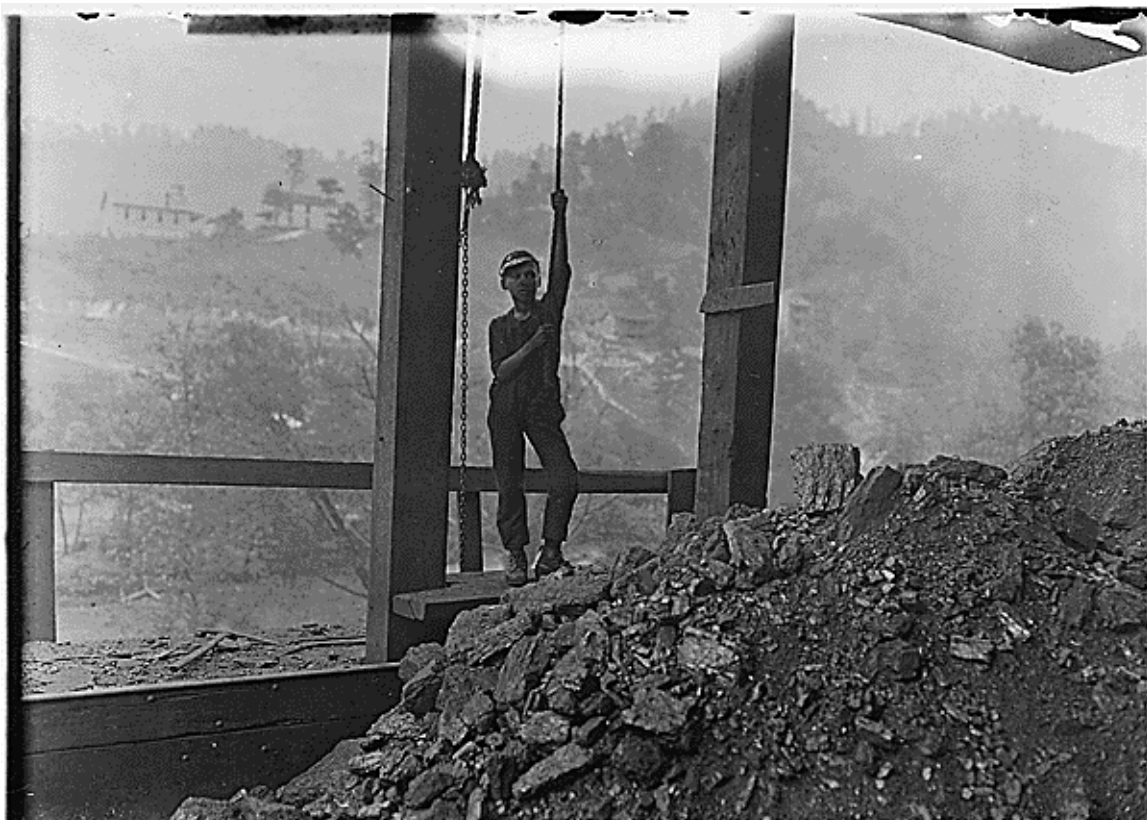


Image 9



Image 10



Images from: www.owdna.org/History/history15.htm; <http://browningmgs.com/FN/Photos/FNfactory.jpg>;
<http://www.archives.gov/education/lessons/hine-photos/images/box-factory.gif>

Preliminary Observations of the Industrial Revolution

Image #	Describe the setting, objects, people, clothing, facial expression, etc.	Describe actions taking place; what do you think the people are doing?	What is the mood of this image? What feelings, emotions, experiences, etc. to you imagine are taking place?	What questions or additional comments do you have about this image?

Images of a NYC Tenement



Source: www.historyplace.com/.../thp-ny-tenement.jpg (source link not working)



Urban Planning in 1890

The task:

The year is 1890. Your group represents the first Urban Planning Committee for New York City. Given the issues the city is facing such as those listed below and beyond, what can you do to improve life in the city? You and your group must come up with a City Improvement Plan.

1. Brainstorm the most pressing problems faced in cities during the Industrial Revolution.
2. Consider the various ways you can realistically address those problems. Keep in mind, many of the systems in place in your own city today were not yet created in the 1800s.
3. Create a City Improvement Plan in which you list goals for city improvement and how you plan to accomplish those goals. For example:
 - **Goal:** Decrease child labor in factories.
 - Step 1:** Encourage the government to pass the following child labor laws:
 - a.) Children under the age of 15 cannot work in factories.
 - b.) Children must attend school until the age of 16
 - c.) ...
4. Your plan must have at least five goals. Each goal should have at least two steps (with supplemental details when ended) on how to accomplish it. Be prepared to pitch your City Improvement Plan to the remainder of class. We will vote on the best plan once everyone has shared.

Before the Industrial Revolution, the United States was a nation of farmers. By 1890 however, the United States was becoming a nation of factory workers. Therefore, people moved from the county to the cities, leading to drastic increase in urban populations. Immigrants also came from other countries seeking work in factories, leading to a further population increase.

Information to consider:

Over population created many problems in 1800s cities, such as:

- Workers needed to be within walking distance of work, but there was not enough housing to accommodate this need.
- There was no room to build more housing side by side.
- Most immigrants could not afford what little houses there were, so they had to live in tenements. Tenements were in poor condition. Usually run down and in need of repair, tenements were often unsafe. They lacked windows, thus did not have light or fresh air. There were no heating or cooling systems installed. Fires often broke out when residents would burn coal or wood in their living quarters for heat. This would also create hazardous health conditions.
- There was no clean water in cities.
- Crime began to rise since there were not enough police.
- The only firefighters in the cities were volunteers.

Whereas today we have laws, regulations, and government officials who keep cities organized and provide services to maintain safety and health standards, such did not exist yet in the 1800s.

**Urban Planning in 1890:
City Improvement Plan**

Committee members: _____

Goal 1: _____

Steps to reach goal:

Goal 2: _____

Steps to reach goal:

Goal 3: _____

Steps to reach goal:

Goal 4: _____

Steps to reach goal:

Common Myths About Undocumented Immigrants

Myth: Undocumented immigrants do not want to be legal residents.

Fact: Immigrants come to the U.S. for a variety of reasons — to reunite with family or to find better employment opportunities — and would prefer to do so through legal channels. However, the U.S. immigration system is extremely limited, and undocumented immigrants in the U.S. cannot simply apply for a visa and obtain legal status.

Myth: Undocumented immigrants are lazy.

Fact: Ninety-six percent of undocumented men living in the U.S. are employed, which exceeds the labor force participation rate of legal immigrants and U.S. citizens by 15 percentage points.¹ Many work two or more jobs. It is clear that employment is a major driving force behind undocumented migration; many industries, such as restaurants, hotels, and agriculture, report that they rely on these hardworking migrants.

Myth: Undocumented immigrants take jobs from Americans.

Fact: Immigrant labor is needed to fill jobs in the U.S. that an older, more educated American workforce is not willing to fill, especially at the low wages and poor working conditions many unscrupulous employers offer.² Currently, there are approximately nine million undocumented workers in the U.S. filling important gaps in the labor market. There is substantial evidence that their presence in the labor force creates jobs and strengthens local economies.

Myth: Undocumented immigrants do not pay taxes.

Fact: Undocumented immigrants pay taxes in a number of ways, including income and sales tax. The majority of undocumented immigrants pay

income taxes using Individual Taxpayer Identification Numbers (ITINs) or false Social Security numbers. All immigrants, regardless of status, will pay on average \$80,000 per capita more in taxes than they use in government services over their lifetime.³ The Social Security system reaps the biggest windfall from taxes paid by immigrants; the Social Security Administration reports that it holds approximately \$420 billion from the earnings of immigrants who are not in a position to claim benefits.⁴

Myth: Undocumented immigrants drain the welfare system.

Fact: Undocumented immigrants are ineligible for the vast majority of state and federal benefits and are only eligible for those that are considered important to public health and safety. In fact, many legal immigrants are also ineligible for most federal benefits. As a result, health care spending for immigrants is approximately half that of citizens.⁵

Myth: The best way to stop undocumented migration is by increasing enforcement.

Fact: Between 1986 and 2002 the number of border enforcement agents has tripled, the number of hours they spent patrolling the border grew by a factor of approximately eight, and the Border Patrol's budget has increased tenfold. At the same time, the number of undocumented immigrants in the U.S. has continued to increase.⁶ Support is growing for a more comprehensive approach to immigration control which combines smart enforcement with measures to create a legal path for those who come to the U.S. to work, and those who are already in the workforce.

1 Passell, Jeffrey S., Randolph Capps, and Michael E. Fix, *Undocumented Immigrants: Facts and Figures*. Washington, DC: The Urban Institute, January 2004.

2 Paral, Rob, "Essential Workers: Immigrants are a Needed Supplement to the Native-Born Labor Force." Washington, DC: Immigration Policy Center, March 2005.

3 Smith, J.P. and B. Edmonston, *The New Americans: Economic, Demographic, and Fiscal Effects of Immigration*. Washington, DC: National Academy Press, 1997.

4 *Testimony on the "ITIN" and Social Security Number Misuse*, presented by Patrick P. O'Carroll, Jr., Social Security Administration, Office of the Inspector General, to the House Committee on Ways and Means, Subcommittee on Oversight, Subcommittee on Social Security, U.S. House of Representatives, Washington, DC, March 24, 2004, www.ssa.gov/oig/communications/testimony_speeches/03102004testimony.htm.

5 Mohanty, Sarita A., Steffie Woolhandler, David U. Himmelstein, Susmita Pati, Olveen Carrasquillo, and David H. Bor. "Health Care Expenditures of Immigrants in the United States: A Nationally Representative Analysis." *American Journal of Public Health*, Vol. 95, No. 8, August 2005.

6 Massey, Douglas, "Beyond the Border Buildup: Towards a New Approach to Mexico-U.S. Migration." Washington, DC: Immigration Policy Center, September 2005.

TOP SECRET MISSION:
Create an invention to make the world a better place!

Industrial Revolution Background

The steel industry is just one example of the growth of United States' industry after the Civil War. The war effort in the North also stimulated some industries such as cannon-making, cloth making, and more. The population grew rapidly after the war, providing both a market and labor for new industrial developments. Inventions come rapidly and transformed American life.

Thomas Edison's inventions centered around the use of electricity. Electricity produced both the first light bulb and the phonograph. Think what life would be like without them! Singer's sewing machine and Bell's telephone had an equal impact on American lifestyles. The sewing machine sped up clothing manufacture and the telephone created a new lifestyle. By the end of the century people were working on ideas for the automobile, the airplane, and other inventions that drastically affected our way of life in later years.

Your Mission...

Imagine you are one of the top inventors of our time and that you have just been given a monumental task: You must create an invention that in some way will make our world a better place. Your mission, if you choose to accept it (and if you plan on earning a grade, you will) is to develop a spectacular new innovation which will almost certainly ease a problem or issue you identify as being problematic to our world.

- Decide on what your invention will be. Remember, it must be something that will serve to make the world a better place. A good place to start is to brainstorm problems that face your community or the world at large. Think about issues such as poverty, hunger, environmental concerns, etc. and consider what you care about the most. Focus on a particular issue or problem imagine what you could invent to fix that problem.
- Since this is your top secret mission you will serve as designer, builder, and marketer of your invention. Create an interesting and unique invention. Be as creative as you like but remember, you must justify how your invention will make the world a better place!
- You will be graded on your group having the following components in your invention:
 - a. Written description of your invention: 25 Points
 - What is it?
 - How does it work?
 - How will it make the world a better place?
 - b. Blueprints of your invention: 25 points
 - Blueprints are drawings of the mechanical aspects of the inside of your invention, as well as the basic outside frame; blueprints might include sketches, storyboards, thumbnails, etc. of the stages of your design from beginning to finalization
 - c. Model of your invention: 25 points
 - Can be a mini-model or actual size to scale
 - Can be made of clay, paper, wire, etc.
 - Does not have to function, just needs to show a model of what your invention will look like
 - d. Presentation: 25 points
 - You are responsible for presenting your creation to the "Patent Board" (your classmates), who based on your presentation will decide whether or not to buy your invention and give you a patent.
 - If you want to be a millionaire, change the world, AND make an A, make sure your presentation is clear, organized, and that you take it seriously.