



## Occupational Health & Safety in Textile

Curriculum Unit 96.02.07

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At the turn of the century, textile mills and clothing manufacture became a popular industry in the employment of women, children, and immigrants. These early mills relied on an unlimited supply of human labor that would endure long unregulated working hours, poorly ventilated areas, and non-stop piecework. The conditions at these mills cried out for reform but at the turn of the century there was no permanent aid in sight. Feeble attempts were made to improve this industry in the form of employee strikes and weak government legislation.

However, it was not until Unions were established and textile workers united that conditions at these mills improved and became more favorable. Unions helped establish laws to protect workers health, workplace safety and hourly wages. Occupational diseases and injuries once prevalent in the textile mills decreased because of legislation requiring industry standards to maintain safe and healthy work environments for textile workers.

Today, most of the old textile mills in the United States are gone but the textile industry continues. Many of the garments worn today are being manufactured in foreign countries like Honduras and El Salvador because labor is inexpensive, and American industries do not have to abide by the health and safety regulations of the United States. In these and other foreign countries, women and children continue to work in sweatshop conditions similar to those of the United States at the turn of the century. Even in places like California and New York, immigrants are being held against their will and are being forced to produce clothing.

Worker exploitation still continues today, and Unions are still actively seeking out those employers who engage in this abuse. It is only through the education and awareness of the public that employers in the textile industries will be forced to treat their employees in more humane ways and take responsibility for health and safety of their workers. By providing students with the knowledge of past and present working conditions of textile industries, students will be able to make wise consumer choices and become advocates for awareness and reform of industries in the future.

## **CURRICULUM DESIGN**

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This curriculum unit is written for high school students and contains an interdisciplinary approach that incorporates the areas of History, Science, English, Business, Geography, Computers and Library Media. This unit is designed to be used as a supplement to the textbooks used in the high schools of the City of New Haven, and can be used for different learning levels. It is written in small topic sections that can be used as single lessons or as a culminating project. In addition, this unit enhances critical thinking and problem solving skills, develops interviewing techniques, improves research skills, promotes interest in geography, and increases vocabulary.

## **OBJECTIVES**

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1. Compare working conditions of the past and present textile industries.
2. Gather oral histories from interviewing relatives or former textile workers.
3. Explain how unions get organized.
4. Simulate a cloth making production line.
5. Discuss adverse health effects of dusts.
6. Explain how lungs function.
7. Debate the need of health standards in industries.
8. Develop interviewing techniques and questions.
9. Read written material by former mill workers.
10. Create an industry with policies and standards for employee health and safety.
11. Make a list of clothing items not made in the United States.
12. Debate issue of whether you would or would not buy clothing made by exploited workers.
13. Research information on companies making clothes in the foreign countries.
14. Make a graph of occupational health and safety hazards.
15. Research local and federal labor laws.
16. Locate countries on map that manufacture clothing.

# STRATEGIES

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## 1. History

- a) Class discussion to examine the historical information about working conditions in the textile industries in the late 1800's and early 1900's.
- b) Oral histories gathered from interviews of relatives or former textile workers.
- b) Guest speakers from the local Union Office who can speak about union progress throughout history and present day issues requiring union involvement.
- c) Role playing a strike in class in which students become striking textile workers and demand better wages, and working conditions that are safe and healthy.
- d) Showing the movie "Norma Rae" which shows the need for a Union in the workplace, and how a union got started in a textile factory in the South.
- e) Simulate a production line in which students are required to produce a piece of woven cloth within a specified period of time.

## 2. Science

- a) Discussion of adverse health effects of the textile worker such as brown lung, tuberculosis, allergic reactions, and asthma attacks.
- b) Explanation of how cloth making process produces harmful dusts.
- c) Use scientific information to explain how the lungs function and how dust inhalation damages the lungs.
- d) Debate the issue of why government standards are needed to maintain a healthy working environment.

## 3. English

- a) Development of interviewing techniques and interviewing questions for oral histories.
- b) Reading work written by former mill workers like Sara G. Bagley, Harriet Hanson Robinson, Lucy Larcom.

## 4. Business

- a) Field trip to local businesses in New Haven like Strauss Adler and Robby Len who manufacture clothing garments.
- b) Examine clothing at home and create an inventory of items and countries they are from.
- c) Explanation of how labor unions are established and how settlements are reached.
- d) Students create their own industries and write a list of policies and regulations for their company which they later compare with State and Federal Labor laws.
- e) Use panel discussion to debate issue of whether students would buy clothing if they knew people who made them were exploited.

## 5. Computers and Library Media

- a) Use of Internet or Library to research information on American businesses that make and sell clothing in the United States and foreign countries.
- b) Research foreign textile industries and make a computerized listing of information or graph from the information showing occupational hazards and abuses.
- c) Research information on Connecticut labor laws and Occupational Safety and Health Act (OSHA).

## 6. Geography

- a) Locate countries on map that are producers of textile goods for American clothing manufacturers.

## **HISTORICAL INFORMATION ON EARLY TEXTILE INDUSTRY**

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Before the Industrial Revolution in the United States, textiles were produced at home with the help of the entire family. The work was split into two categories of spinning and weaving. Mothers and daughters did the spinning while fathers and sons did the weaving on the loom. This idea of the family working together allowed fathers to teach their sons a trade and mothers to teach their daughters how to cook and sew. It also enabled parents to educate their children and supervise their upbringing. Working on the spinning wheel and weaving machine could be done at anytime because there were no clocks in the house that told you when to start working and when to quit. Dinner could be eaten at a leisurely pace without being rushed by a clock, and children could play and rest properly so they could grow up healthy and strong.

With the invention of the mechanical spinning and weaving machines in the late 1700's the way textiles were being made had changed forever. Families that had once worked together in their homes now had to go work in textile mills. Children worked along side their fathers but not as before. Now, they were standing on their feet all day and putting in long hours just like their fathers. Young women too, were no longer learning how to cook and sew. Instead, they were learning how to run several machines at one time in the textile mills. Eventually immigrants also found themselves in the textile mills working for poverty level wages and enduring the harsh conditions of the mills.

### **MILL CHILDREN**

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In the textile mills, children stood all day on their feet and worked twelve hour days, six days a week. Children were sometimes used to oil machines, change bobbins, and remove loose threads from inside moving machines. Their small hands could fit into narrow places that adult hands could not. Children sometimes got their fingers and hands ripped off because they were not fast enough. Children also had to be careful and not let their hair get too close to the moving machines because the machine wheels would mistake hair for thread and rip the scalp from the child's head. Injuries to children were very common in the early textile mills.

### **YOUNG WOMEN**

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The Industrial Revolution with its invention of machines had a huge impact on the lives of women who made textiles. The once important home spinning wheel and loom was replaced by textile mills in industrial urban areas in the Northeast. Hand made cloth, that had once involved the entire family in the making process, was now replaced with machine made cloth that could be made at a phenomenal rate. Women were needed in the mills to run the machines and would be paid for their work. The mills opened up an opportunity for unattached women dependent on relatives to feel useful and independent by earning their own living.

Women were the first factory workers in the United States. Early textile mills employed mostly young women because they were more docile and could be paid lower wages than males. The mill owners attracted young women to the mills, with stories of a wonderful urban life that included night school, literary magazines, public lectures, libraries and money to spend. Once the girls got to the mills they realized that the promises made by the owners were untrue. Instead of having money to spend, visiting libraries and attending lectures, most girls

found the money earned was used to pay their living expenses and necessities. Also, after rising early and working all day the girls were too exhausted to attend anything in the evening. Working in the mills made girls that had once been full of life old before their time.

The young women who came to work in the mills were required to live in company owned boarding houses that were shared by other women. These houses were run by elderly matrons who charged rent that was paid directly to the company. At times, several girls might be forced to share a single room to reduce living expenses. Dinner too, was sometimes reduced to nothing more than a little bread with gravy. In addition, if the young women needed supplies they would have to purchase them from the company owned store that charged exorbitant prices.

With little food to eat and not enough rest, it was difficult for the young women to continue working in the mills. Many young women left the mills after a year of employment and headed out west to the frontier because they could not endure the harsh working conditions in the mills. Those that stayed for longer periods of time suffered from tuberculosis, malnutrition, exhaustion, hearing loss, premature aging, maiming and death.

## IMMIGRANTS

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In the 1800's and early 1900's, immigrants steadily came to the United States. Many of the immigrants of the early 1800's were skilled craftsmen who came to this country seeking a better life. Immigration to the United States reached its peak between 1880 and 1910. The immigrants of the early 1800's were now being replaced by less skilled immigrant workers fleeing to the United States because of hardships in their native lands. At this same time, in the United States the working population was expanding one-third faster than the total population with immigrants making up 20 percent of the work force.

With this influx of less skilled immigrants, manufacturers acquired a more inexpensive form of labor. Since immigrants were extremely poor, having escaped hardships in their own countries, they were willing to work hard at any job for longer hours and lower wages than the American workers. Many business owners took advantage of them.

In the major cities like New York, clothing manufacturers took advantage of immigrants and usually employed entire families in the manufacture of clothing. Manufacturers set up tenement workshops known as "sweatshops". In these sweatshops immigrant workers lived and worked in the same rooms. Families would sometimes work seven days a week just to be able to pay their rent and buy a little food. Sometimes to complete jobs, families needed to take on extra immigrant workers who lived and worked with the family in the same room. This overcrowding led to unsanitary living conditions which caused diseases to spread quickly from one person to another. In addition, infant mortality rates were high. One out of every five babies born in these sweatshops died.

Those immigrants who did not work at home in the tenement workshops went to work in clothing factories that were dark, poorly ventilated, unheated, odor-filled and unsanitary. These factories were also crowded with flammable materials and machines which made fire escape routes impossible to find. In addition, employees kept doors locked to prevent workers from leaving to going to the bathroom. Because there were no safety laws at this time, employers did not follow any precautions and chose to run the factories as they

saw fit. It was not until the Triangle Shirtwaist Company fire that new safety regulations in factories were passed.

On March 25, 1911 at 4:30 in the afternoon, the Triangle Shirtwaist Company located on New York's East Side caught on fire. On this day, a fire broke out on the seventh, eighth, and ninth floors of this factory. Employees inside could not break through the locked steel doors inside the factory. Workers tried to escape from the fire by climbing on the fire escapes only to have the fire escapes collapse under their weight. Desperate to get out of the factory, some workers jumped out of windows to their deaths on the pavement below. Fire trucks who arrived at the scene could only reach the sixth floor of the factory with their ladders. In the end, burned and injured bodies of the workers lay everywhere. The final count of dead bodies was 146 Jewish and Italian immigrants most of whom were women. <sup>1</sup>

## **MILL WORKING CONDITIONS**

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A typical working day in the mills started with a factory bell ringing at 4 o'clock in the morning to wake up the employees. Within an hour employees had to be at the mills starting work until late in the evening; sometimes 12-14 hours a day. The air in the mills was not circulated causing it to become very hot in the summer and extremely cold in the winter. Company supervisors believed that opening any windows would cause threads to break more often so they chose to leave windows shut tight at all times. Workers were either sweating or shivering by their machines and many of them got sick with tuberculosis and other respiratory diseases.

Lighting in the mills was also a problem because it was insufficient and workers had to strain their eyes to see what they were doing so as not to injure their hands with tools or machinery. This was very important to the employee because if an injury occurred the employee could lose their job and be replaced immediately. In addition, there was no monetary compensation from the company for the injured. It was not until 1922 that most states passed legislation requiring industries to pay compensation to injured employees.

## **UNIONS AND WORKER EXPLOITATION**

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Trade unions in the United States played an important role in improving working conditions, increasing worker wages, and maintaining safety in industries. Unions recruited employees to organize and fight the injustices of the business owners by urging employees to strike or walkout of factories until a satisfactory agreement could be reached. Some employees were reluctant to join unions because they feared reprisals from the company owners. In addition, some strikes broke out in violence and people were arrested, injured or killed. However, because union enrollment continued to increase the unions were able to flourish and bring about many changes.

In the textile industry, the ILGWU (International Ladies' Garment Workers' Union) was founded in 1900 as a result of the desperate need to change the working conditions of the garment workers. The ILGWU is credited with forcing the government to enact legislation for factory safety regulations in the 1920's. The Union also led the way for creation of the Fair Labor Standards Act of 1938 that eliminated sweatshops, outlawed child labor and guaranteed a 40 hour work week. The ILGWU created a union health center in 1914, a summer

resort for union members in the Poconos in 1920, a 35 hour work week in 1933, an industry wide pension fund in 1943, an employee employer financed health insurance plan in 1944, and a major television advertising campaign called "Look for the Union Label" in 1975, which emphasized that consumers should buy clothing made only by Union textile workers in the United States. The ILGWU still exists today. <sup>2</sup>

The Clothing Workers Union was founded in 1914. It too, helped with the creation of the Fair Labor Standards Act of 1938, but in addition is credited with signing a historic agreement of a 44 hour work week as early as 1919. The Clothing Workers Union established an unemployment insurance plan in 1923, cooperative apartments in 1926 and an employer paid health and life insurance program in 1941. In 1976, the Clothing Workers Union merged with the Textile Workers Union and became known as the ACTWU (American Clothing and Textile Workers Union). The ACTWU also exists today and works together with the ILGWU to ensure workers are humanely treated. <sup>3</sup>

Unions in the 1990's still expose textile companies who are inhumanely treating their workers. Many large clothing retailers use illegal foreign labor in the United States for clothes manufacture or they contract work out to foreign countries. The reason for this is that the cost of foreign labor is inexpensive and that United States companies do not have to adhere to American laws while in foreign countries.

In August 1995, an apartment complex surrounded by barbed wire was raided by state and federal law enforcers who freed 67 Thai female and 5 Thai male immigrants from sweatshop working conditions. Immigrants had been working for U.S. clothing manufacturers and retailers like Montgomery Ward and Nieman Marcus for \$1.60 an hour sewing clothes. Workers were forced to work from 7:00 A.M. until midnight, six days a week. Some workers had been at this sweatshop for seven years and were afraid to leave for fear of rape, death, and retribution against family members at home in Thailand. The Union of Needletrades, Industrial and Textile Employees (UNITE) helped these Thai immigrants gain their freedom and offered legal advise about their rights as workers. Unions once again proved to be a vital instrument in prevention of worker exploitation.

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Exploitation is not only in the United States. In Central America, there are approximately half a million garment workers many of whom are as young as 13 working for U.S. clothing manufacturers and retailers. In August 1995, the GAP, a U.S. clothing manufacturer who contracts out work to Central America, was found to have girls working 13 to 18 hours a day with only two 5 minute bathroom breaks throughout the day. In addition, girls were abused by supervisors who threw things at them if they did not work faster. To keep their jobs, girls were forced to take birth control pills or take pills that caused miscarriage if they got pregnant. <sup>5</sup>

Clothing companies like the Gap profit from the exploitation of inexpensive foreign labor and are not held liable for the inhumane treatment of workers. American companies close their eyes to what is really going on in these countries. When abuses are exposed, the American companies solve the problem by cancelling their work contract with the abusing contractor, which only causes many workers to become unemployed. The American companies never assume full responsibility for abuses but simply move on to new contractors in other countries while Unions continue to watch and be ready to expose the next exploitation of workers.

## CLOTH MAKING IN THE COTTON MILL

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Cotton is a fiber that grows in a seed pod. When the pod pops open, the cotton is ready for picking. Cotton is picked by machines and then transported by trucks to cotton gins for removal of seeds. Once it is cleaned, it is then packed in bales and delivered to the opening room of the textile mill.

Opening Rooms are large rooms where bale openers break the metal straps and cut the burlap cloth that contains the cotton. The bale openers use a machine to break the straps and loosen the tightly packed cotton. The machines remove most of the dirt found in the cotton so it is important for the machines to be well oiled and clean. Workers tending these machines must be careful because the machines move very fast and can be dangerous.

Once the cotton is loosened, it moves on to a machine called a picker. The picker breaks the cotton apart into small pieces. Workers feed cotton into the picker by manually throwing armfuls of cotton into it. The picker produces a product consisting of a long continuous sheet of fiber called a lap. The lap is then rolled into large round packages that weigh forty pounds. Workers in the opening and picker rooms must be strong because they are required to lift these heavy round packages onto power lifts that move them into the Carding Room.

The Carding Room produces long, untwisted strands of cotton called slivers. Slivers are made by feeding cotton into the rollers of the card machine. The rollers are covered with fine wires and metal teeth that pull the cotton into sheets. The sheets are then fed into a narrow opening shaped like a funnel to give the sliver a round like shape that is similar to rope. Slivers are automatically collected in empty cans, and cans are replaced by employees when they become full. Machine operators in the carding room supervise sixty to eighty machines. They walk back and forth looking for machines that have stopped because of broken slivers so they could repair the sliver and get the machine restarted as quickly as possible. Work in the carding room is tedious because there are more machines than people. The rooms are noisy, dusty, hot, and humid. At times, workers have a hard time staying awake.

Combing is the next step in the cloth making process. In the combing process, cotton is cleaned and blended. Cotton carded slivers are put into machines running at high speeds. These machines stretch the sliver and combine it with other slivers to give it a uniform texture. These slivers are then sent to machines called roving frames which make the slivers thin so they could be spun into yarn. Once the sliver is thinned, it gets twisted, and wound on a bobbin. Slivers that have been thinned, twisted, and wound are then called roving.

In the spinning process, roving becomes even thinner and receives more twists. In the spinning department, workers wind roving on bobbins and mend broken roving ends. If broken roving is not connected, the roving will get tangled and cause machines to stop running. Workers use rows of bobbins to wind roving which takes hours to fill. Bobbins contain either warp yarn which is the thread that runs lengthwise through woven cloth or filling yarn which is the thread that runs at right angles to the warp yarn. Once the bobbins are filled, workers called doffers remove the filled bobbins and replace them with new ones. These filled bobbins are brought by workers to the slashing department for starching.

The slashing department applies a protective starch solution to warp yarn to make the yarn stiff and strong. Workers use machines to apply the starch solution and also combine threads from several beams onto one loom beam. The loom beam is usually made from wood or metal and is a cylinder shape that can hold large amounts of yarn. Once the yarn is on the loom beam, workers then take it to the weaving department to be woven into cloth.



In the weaving department, workers known as weavers use a weaving machine called a loom to turn yarn into cloth. The looms are high-speed running machines that lock two or more sets of thread together. One set called the warp runs lengthwise while the other set runs across the width of the fabric. Weavers set-up the machines by guiding warp threads through a set of pointed wires so that the weaving can begin. In addition, weavers carefully watch for breaks in the warp thread. If a break occurs, the looms stop automatically and weavers repair breaks and fix any mistakes that are woven into cloth. Weavers operate one hundred or more looming machines running at the same time which makes the weaving room noisy and hot. Many weavers that have no skills or training, work in this department and get paid according to the amount of fabric they produce. Since weaving is done on piece work, it becomes necessary for weavers to quickly locate and mend broken threads, and restart the machines. The longer a machine stands idle, the less money a weaver makes. Once the weavers finish weaving, the woven cloth goes to the cloth room.

In the Cloth Room, workers grade the quality of woven cloth and prepare the cloth for shipment to clothing or sheet manufacturers. Sometimes the woven cloth is sent to other plants for design printing. To prepare cloth for shipment, some workers sew rolls of materials together, remove stains from the cloth, or use machines to cut knots and loose ends from thread in the material. Those workers using machines must be careful because the machines have large knives which can cause injury. Cloth is inspected prior to shipment by inspectors who pass cloth over large tilted tables and expose the cloth to good lighting to check for defects. If inspectors find that the cloth is free of defects, it is then graded for quality, measured and folded into regular size lengths. The folded cloth is sent to workers who cover the cloth with paper or burlap and compress it into a bale of cloth fastened with metal straps. At this point the work of the cotton mill is finished, however because the woven cloth is naturally gray-like in color the cloth may be sent to other companies to be bleached, finished or dyed.

Bleaching is the process of removing all natural gray-like color from the woven cloth and making it look white. Before the cloth can be bleached, it must be singed so that the cloth gets a smooth surface. Singeing is the process in which woven cloth passes over a gas flame or heated metal plate to remove fuzz or lint from the cloth. In addition, the singeing process creates a lot of heat and makes the working environment extremely hot. After singeing, workers wash and boil cloth in large tubs for several hours or they wash the cloth in a hot chemical solution made from salt called caustic soda. In either bleaching method, the process is repeated several times until the cloth turns white and becomes ready for finishing or dyeing.

Finishing is processing cloth to make it suitable for different uses. Companies called “converters” finish cloth by either chemical or mechanical finishing. In chemical finishing, workers treat cloth with chemicals to make it waterproof, or wrinkle-free while mechanical finishing workers treat cloth with starch solutions to make it feel and look better. Cloth can be preshrunk so it will not shrink anymore, or it can be made shiny and strong through the process of mercerizing. In the finishing process workers are exposed to chemicals and heat from washing and drying.

Dyeing is the process of adding color to woven cloth. In the past, dyeing of cloth was done using natural color from roots, flowers and berries. Today, dyeing is done using synthetic or man-made dyes because it is cheaper and the color lasts longer than natural dyes. Synthetic dyes were invented by chemists as early as 1856. Since then, many new dyes have been created. Workers in the dyeing department dip woven cloth into large vats of dye which is called piece dyeing. Cloth is rolled on large perforated beams that are set on perforated spindles. Dye is pumped into the spindles to dye the cloth from inside while at the same time, dye is added around the beams to dye cloth on the outside. When the cloth has finished dyeing, workers feed the cloth into rollers that squeeze out the dye and remove excess liquid. In the dyeing process, workers must

constantly make sure that dyeing solutions are at proper strengths and temperatures. When necessary, workers must supply hot steam to increase temperatures in the dyeing solution. By doing this, the steam creates a hot and sticky working environment. In addition, the synthetic chemicals emit strong odors, but because the workers are too busy tending to their work, they do not realize that they are breathing in those chemicals which may at a later time create health problems for them.

## **COTTON DUST AND OSHA**

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Cotton is a natural fiber used in the production of cloth. When cotton is being processed, it emits fine cotton dust particles into the air. These particles are breathed into the lungs by the person working with the fiber. Sometimes the person can have an allergic reaction which is similar to an asthma attack. This allergic reaction causes the small airways in the lungs to contract so air cannot quickly leave the lungs. Any air that is already in the lungs at the time of the attack has to force its way out of the body through narrowed lung passages which in turn produces wheezing sounds that are common during asthma attacks. Even if a person working with cotton does not display any allergic reactions, there is scientific evidence that people who are exposed to cotton dust may develop a permanent decrease in their breathing ability. This cotton dust related disease is known as Brown Lung or byssinosis, and affects thousands of people in the textile industry who are exposed to large quantity of dust.

In addition to lung problems caused by dust, textile workers who work with dyes or finishers can develop skin allergies or rashes known as dermatitis. Finishing agents such as formaldehyde used in permanent press materials can cause allergic reactions that affect the respiratory system. Also, textile workers who are regular smokers working with dusts or finishing agents are at a higher risk of developing lung and heart problems. The risk multiplies with the amount of exposure. The duty of the employer becomes even greater in making sure that workers are not exposed to large quantities of foreign substances such as cotton dust or chemicals.

The passing of the Occupational Health and Safety Act (OSHA) of 1970, was the means by which industries were forced to adopt standards to ensure a safe and healthy environment for workers. OSHA guarantees employees the right to a safe and healthy working environment and OSHA inspectors can walk in and inspect workplaces at anytime. Workers who feel that their workplace is unsafe can file complaints with OSHA. If upon inspection, OSHA finds violations of industry standards, then the industry can be heavily fined. In addition, OSHA requires that industries keep records of work related accidents, illnesses, injuries, and exposures to harmful materials. This information must be made available to employees and government agencies and provided upon request. Lesson Plan 1

### **Objectives**

- a) Students will develop written questions for interviewing.
- b) Students will interview relatives or former garment industry employees.
- c) Students will present oral histories to class.

Oral histories are excellent sources of historical information. Many students are not aware that relatives can be primary sources of information. Students may have had relatives that worked in the local textile industries of New Haven in previous years and can give first hand accounts of their experiences. Through interviewing, students can gain access to this valuable information and share it with members in their class.

### **Activities**

- a) Explain oral histories.
- b) Have students make a list of interviewing questions in class prior to interview. Have students practice by interviewing each other in class.
- c) Have students gather oral histories through interviews.
- d) Present oral history in front of class.
- e) Submit written report for posting in class.

## **LESSON 2**

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### ***Objectives Students will organize a labor union in class.***

Using role playing, students will create a labor strike.

Students will settle strike dispute with compromise.

### **Activities**

- a) Have students read about the horrible treatment of textile workers and identify occupational hazards that would initiate a strike.
- b) Show the movie "Norma Rae" so students can see how workers start a union and how employees organize a strike. b) Have students determine what they will be striking for and what solutions they would accept.
- c) Explain to students that in a strike there are differing sides with the Union acting as a mediator. Also, explain the concept of compromise which is needed to end the strike and make striking demands acceptable to all.
- d) Assign roles to students with some being striking workers, union representatives and business owners. Give instructions on how the strike should proceed and allow students to settle the strike on their own.

## LESSON 3

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**Objectives Students will debate the issue of wearing clothes not made in the United States.**

Students will identify clothing items made in other countries.

Students will locate on a map the countries that made their clothing.

### **Activities**

- a) Using a panel discussion of several students, initiate a discussion on the issue of wearing clothes made in the United States and in foreign countries. Provide students information from this unit on exploitation of foreign workers, then have them justify their answers if they knowingly would or would not wear certain clothing items if they knew they were made by people who are exploited.
- b) Have students examine their clothing labels at home and make a list of clothing items, countries they were made in, the name of store the item was purchased at, and the purchase price of each article. Many students would realize that not much is made with the “Made in USA” label.
- c) Working in small groups, have students use the Internet or library to research information on American industries that make or sell clothing. Students will be surprised to find many of the clothing companies that they buy clothes from, contract abroad to foreign countries where labor is inexpensive and workers are exploited. After students gather their information, have them present their findings to the class.

## LESSON 4

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**Objectives Students will produce woven cloth in class.**

Students will simulate a production line in a textile factory.

Activities:

Using yarn or string, simulate a labor production line in which students are required to produce a piece of woven cloth within a specified period of time. Prior to simulation, provide students with information from this unit on the cloth making process.

- a) Have students sit in groups of five, with two on the left, two on the right and one at the end.
- b) Give students sitting on the left and right a piece of yarn or string to hold with each hand

across from each other. The student at the end holds a ball of yarn or string and weaves it in and out, among the four pieces of yarn or string that the students on the left and right are holding.

c) To give students a sense of working in a textile factory, set a time limit for production and see which group produces the most cloth within the assigned time.

## LESSON 5

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### **Objectives**

Students will discuss the health hazards of cotton dust.

Students will debate the need for health and safety standards in the textile industry.

### **Activities**

- a) Using a talk show simulation, assign roles of talk show host, healthy employees, employees with brown lung, company owner(s), OSHA representative, and medical doctor. Prior to talk show have students read information in this unit on cotton dusts and cloth making.
- b) Talk show host should lead discussion asking questions similar to the following. Students can create their own questions prior to the talk show.

Medical Doctor: Please explain to the audience what brown lung is and how a person gets it.

Employee with Brown Lung: What medical problems do you have as a result of working with cotton dust in the textile mill?

Healthy Employee: Do you have any fears of getting brown lung or other occupational diseases because you work in the textile mill?

OSHA Representative: Is there any legal protection for workers that are exposed to hazardous materials in the workplace? Company Owner: Should your company be held responsible for occupational and health hazards that workers in foreign countries are exposed to while making your American products.

## LESSON 6

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**Objectives Students will establish their own company policies, and regulations for health and safety in the workplace.**

Students will research local and federal labor laws.

Students will compare local and federal labor laws with those that students established for their companies.

### Activities

a) In groups working on a project or independently as an assignment, have students establish an industrial company in which something is manufactured. Students should describe their company product(s) and include policies and regulations on the following issues and others that are thought of by the class or teacher.

Attendance	How many days off should your employee receive? Holidays, Personal Days, Etc.	
Wages	How much should an employee receive? Should pay be determined by the difficulty of the job or exposure to hazards?	
Break/Lunch	How many per day? How many minutes?	
Maternity	How many days? Paid or unpaid? Should pregnant women work around hazardous material?	
Sick Leave	How many days? Paid or unpaid?	
Smoking	Is their smoking in certain areas? Is workplace a smoke free environment?	
Ventilation	Should there be windows? air conditioning? Is it too hot/cold? etc.	
Safety	Should protective clothing, eye wear, or shoes be	worn? Is there any chemical work requiring special handling? etc.

Environment Is production of product damaging the environment? What precautions are being taken for maintaining the environment? How are wastes being removed? etc.

## Notes

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1. Judith Woodburn, "A Multicultural Portrait of Labor in America" (New York: Marshall Cavendish, 1994), p. 43.
2. Muriel H. Cooper, "Time to UNITE" AFL-CIO News, (June 19, 1995), p. 8.
3. Ibid.
4. Hawkins Renee, "Slave Conditions In Southern California Garment Shop" Sweatshop Watch Newsletter, Vol. I (Fall 1995), p. 1.
5. Hawkins Renee, America "Sweating for the Gap in Central America" Sweatshop Watch Newsletter, Vol. I (Fall 1995), p. 2.

## STUDENT READING LIST

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"A Spirit to Ride the Whirlwind", by Athena V. Lord. (MacMillan Publishing Company). Binnie is a twelve year old girl living in a boarding house run by her mother in Lowell, Massachusetts. Binnie begins working in a textile mill and gets involved in the 1836 strike of women workers.

"Lyddie", by Katherine Patterson (Puffin Books). A poor farm girl named Lyddie Worthen is determined to gain her independence by becoming a factory worker in the Lowell, Massachusetts mills during the 1840's.

"Mill Child", by Ruth Holland (Crowell-Collier Press). This book traces the history of child labor in the United States from the early nineteenth century to present day.

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