

Assembly line simulation

By Paul Spatafore

Objectives

- Students will have an understanding of how the assembly line was used during the Industrial Revolution and draw conclusions on how this transformed and shaped the work environment.
- Students will have an understanding of the pros and cons of the assembly line and how these pros and cons affected how it was used, who favored its use, who opposed it, and why.
- Students will compare and contrast between their experience and the actual experience of working on an assembly line during the Industrial Revolution.

Procedures

1. Create three columns of seats before students come to class. Students with no idea of what they are doing will be asked to draw their best face of a man including the following things head, hair eyes, eyebrows, nose, mouth, and ears.

2 Ask students to pick the picture they think is best from their column. After they have chosen the best picture, assign students one part of the face that they will be required to draw. Their assigned part will be on the overhead.

3. Explain the rules of the assembly line and the competition. The three lines are in a competition with other the groups to produce the most quality (the teacher will be the judge of quality) drawings in a certain amount of time. For the first ten minutes students will be allowed to create pictures at their own pace with little interference. They winner could get bonus points, candy, etc. Stop students after ten minutes and decide the winner.

4. To make conditions more realistic, students will be now have to deal with a foreman, the teacher. There will absolutely no talking, laughing, or horseplay. Doing this can result in pictures being taken away. Also other variations could be made to make conditions worse: turning off the lights, weather conditions, broken pencils, etc. Students again will do the assembly line for 10 minutes. Stop students after ten minutes and decide the winner. Keep a tally on the board of how many pictures they drew for each session, so that they can see if they did better the first ten minutes or the second ten minutes.

5. After the next winner is declared students will be asked reflect on what just has happened. Students will be given answer sheet to help guide this reflection.

6. Discuss student's responses and explain the meaning of the exercise (the assembly line). Ask students to complete page two of the worksheet in which they will answer some analytical questions and list pros and cons of the assembly line.
7. Make a list of pros and cons on the overhead and generate a list based on student responses. Use the answers from other questions to lead into a discussion.
8. Assign a reading based on what the assembly line was truly like during the Industrial Revolution. Students will be asked to read this passage and create t-chart based on two subjects. One based on their classroom experience and one based on the historical reality. These charts will be discussed the following day.

Sources

History Alive, *The Rise of the Industrial Revolution*, 1997

Assembly Line Reflection

1. What feelings did you experience during this activity (What did you like and dislike? What was hard? What was easy)?

2. What did you think was the most productive for your group the first ten minutes or the second ten minutes? Why?

3. What one word would sum up your experience?

Pros	Cons

1. How do you think workers felt about the assembly line?
2. Why do you think business owners used this method of production?
3. If you owned a business, would you use this method of production? Why or why not?
4. What alternative methods of production might be better than the assembly line?

The Reality of the Assmebly Line

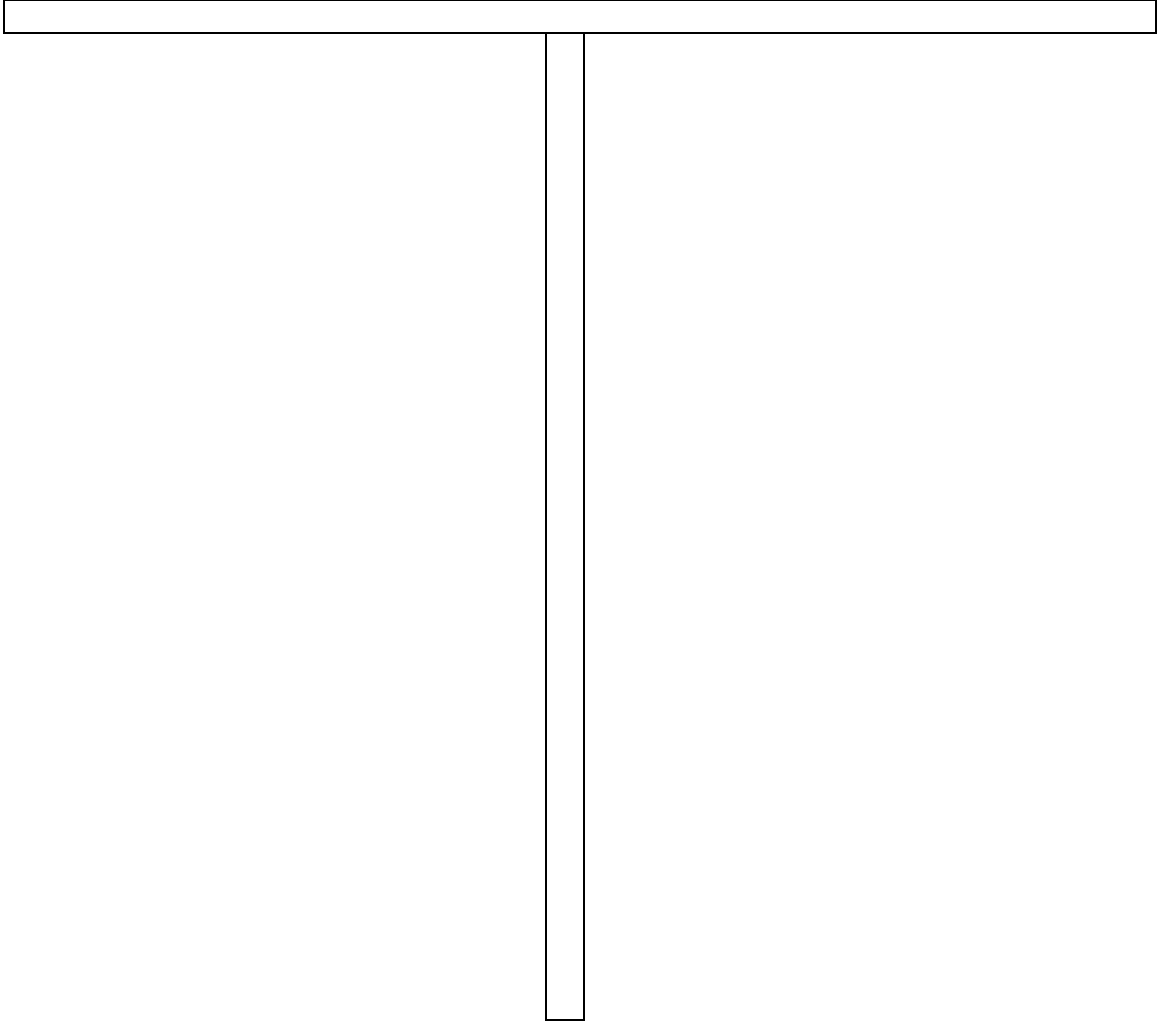
Name:

Directions

After reading the passage, complete the following T-chart that compares your assembly line experience the second ten minutes to what assembly lines were like during the Industrial Revolution. One side will tell you what you actually did in the simulation the other will tell how it was during the Industrial Revolution. You need to cover conditions, rules, environment, and experience. Come up with at least eight corresponding ideas.

Classroom Experience

Historical Reality



INDUSTRIAL REVOLUTION LESSON PLAN
BRIAN JACKS
WAUKEGAN HIGH SCHOOL
15 JULY 2003

LESSON PLAN ONE-THE POEM

GOAL:

1. Students will understand the historical significance of the Brooklyn Bridge, which was built in 1883, by integrating primary sources with historical and literary analysis. Students will work in groups and write a poem that reflects their understanding of the Brooklyn Bridge in relation to industrialization in America.

The artistic models for the students' poems are Walt Whitman's "Passage to India" and Hart Crane's "The Bridge." These poems demonstrate the tension between art and technology and will enable students to develop their own ideas about the nature of industrialization. Students will also examine other primary sources, including written texts, images, and songs, in developing their own poetic response to the Brooklyn Bridge.

OBJECTIVES While carrying out this unit, students will:

- . identify and interpret primary source documents from a historical perspective, including music, images, and words that symbolize the Brooklyn Bridge.
- . analyze and appreciate the complex nature of American life in a time of great change;
- . demonstrate a basic understanding of the poetic style of Walt Whitman and Hart Crane; and
- . merge creative writing and historical analysis.

TIME REQUIRED Four days

CURRICULUM FIT American History or American Literature

RESOURCES USED <http://www.nycroads.com/crossings/brooklyn/>
[http://www.endex.com/gf/buildings/bbridge/
bbridgefacts.htm](http://www.endex.com/gf/buildings/bbridge/bbridgefacts.htm)
[http://www.endex.com/gf/buildings/bbridge/
bbridgepoetry.htm](http://www.endex.com/gf/buildings/bbridge/bbridgepoetry.htm)

THE RISE OF INDUSTRIAL AMERICA
LESSON PLAN
LABOR'S RESPONSE TO INDUSTRIALIZATION
by
Kristi Robertson
July 2003

These lesson plans are designed to be a three-day component of a 15-day unit, placed approximately in the middle of the unit.

Content Objectives:

1. Students will have an understanding of how industrialization changed the nature of work, working conditions, the types of workers, and the status of workers.
2. Students will have an understanding of how industrialization shaped and was shaped by the creation and continuing evolution of labor unions. They will understand the significance of events such as the Railroad Strike of 1877, the Haymarket Riot, the Homestead Steel Strike, and the Pullman Strike, and how they symbolized the reactions to the many changes taking place due to industrialization.

Activities

Day 1: Students will have read a photocopied excerpt from Robert Bruce's book *1877: Year of Violence* in preparation for this day's class. They would show their preparation by highlighting portions of the text which demonstrate how life and work was changing for the American worker (these instructions would have been given the day prior to this class). Class would begin with a brief discussion of their findings and the teacher clarifying this information. Students would then view a ten-minute segment of the PBS *New York* series which depicts experiences of garment workers at the end of the 19th century. Through class discussion, students will hypothesize about what options were available to workers who wanted to change their situation. Students will then take notes during a lecture about the development of labor unions (the teacher will provide an outline handout). As homework, students will be given a descriptive reading of the Railroad Strike of 1877 to read and highlight, being able to discuss the who, what, why, and how details for the following day.

Day 2: At the beginning of class, the teacher will put an image of the Railroad Strike on the overhead projector for the students to analyze based on what they read in preparation for class. They will then be given a graphic organizer and will work together with the teacher to complete the part about the Railroad Strike. The class will then be divided into three groups, each receiving a descriptive reading about one of the following: the Haymarket Riot, the Homestead Steel Strike, the Pullman Strike. As a group they will read and then complete the part of the graphic organizer that pertains to their event.

Groups will then present what they found out to the rest of the class, while students fill in their organizers. Images of each event will be on the overhead projector for commentary as well. Each student should have the entire graphic organizer filled in by the end of the activity. These will be collected for points. The teacher will follow with a discussion about the significance of these events collectively.

Day 3: Students will be put into groups of 2-3 that the teacher has worked out prior to class. Groups will be organized according to the event read about the day before, as well as with a mixture of ability levels. Groups will be given one or two primary source documents which depict the experiences of various business leaders, labor leaders, workers, and the general public. They will examine the documents and discuss what they say about each source's version of America and the "American Dream". Groups will present their conclusions to the class. The teacher will lead a discussion about the ideas, emotions, beliefs, hopes and fears which were present in the late 19th century.

Evaluation and Feedback:

The teacher will be checking for comprehension throughout the three days through questioning of students and giving them the opportunity to ask questions. The teacher will also check the graphic organizers for thoroughness and will provide students with comments if they need to elaborate in areas. Students will demonstrate competency in meeting the lesson objectives through the quality of ideas shown on the poem activity which follows, as well as on the document based question assessment.

Resources:

Teacher created handouts are attached.

The *New York* documentary video was directed and produced by Ric Burns. It is available through PBS.

Secondary Sources

Bruce, Robert V. *1877: Year of Violence*. Chicago: Ivan R. Dee Inc., Publisher, 1959, pp. 43-48.

Dubofsky, Melvyn. *Industrialism and the American Worker*. Harlan Davidson, 1985.

Zinn, Howard. *A People's History of the United States*. New York: The New Press, 1980.

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pp. 395-397 "The Company's Case" by George M. Pullman
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Bailey, Thomas A. *The American Spirit*. Lexington, Mass: D.C. Heath and Company, 1968.

pp. 531-532 "Powderly Denies a Breakup" by Terence Powderly
pp. 578 "Starvation at Pullman" by John P. Altgeld

Gorn, Elliott J., Randy Robertson and Terry D. Bilhartz. *Constructing the American Past*. New York: Longman Publishers, vol. 2, 2002.

pp.23-25 "Fair Wages" by a Striker
pp.25-27 "The Recent Strikes" by Thomas A. Scott
pp. 28-29 "Strikers, Communists, Tramps, and Detectives" by Allan Pinkerton

<<http://historymatters.gmu.edu/>>

"Haymarket Martyr Albert Parson's Last Words to His Wife"

Johnson, Michael P. *Reading the American Past*. Boston: Bedford Books, 1998.

pp. 37-41 "On Capital and Labor" by Jay Gould
pp. 45-49 "Wealth" by Andrew Carnegie
pp. 55-60 "Testimony before a U.S. Senate Committee" by Thomas O'Donnell
pp. 66-67 "Ten Commandments for Workers" from *Mobel-Arbeiter-Journal*

Ravitch, Diane. *The American Reader*, New York: Harper Perennial, 1990.

pp. 179-182 "What does the Working Man Want?" by Samuel Gompers.