

Publishers' Bindings Online, 1815-1930: The Art of Books
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Sample Lesson Plan: Industrial Revolution
Grades K-12

* Teachers of elementary students may modify the wording to a level better understood by younger children and omit the discussion questions.

* Students in grades 6-12 should be given up to a week to complete their activity; reporting on their activity will take a second class period.

Objectives:

- Students will learn about the changes that took place during the Industrial Revolution.
- Students will learn how book bindings reflect society.

Materials:

- 1) A computer with an Internet connection and a large screen or other capability to display the teacher's actions to the entire class.
- 2) **For 6-12 only:** Chalk board or dry-erase board and appropriate writing implement.
- 3) **For K-5 only:** Enough blank paper for each student.
- 4) **For K-5 only:** Crayons, markers, or colored pencils (either for each student or to share).
- 5) **For K-5 only:** Corkboard and tacks or other capability to display student artwork (such as spreading it out on a large table or taping it to the wall).

Lesson

Introduction

Media often reflect the society in which they are created, and books are no different. Book bindings produced during the American industrial revolution symbolize and reflect the incredible changes that took place during this era.

Historians note that the period from the Civil War's end until roughly 1920 was marked by a movement toward production of goods by machine rather than by hand, usually in large, intricately-organized factories. Other characteristics of the era include accelerated technological innovation; growth of a nationwide transportation network based on the railroad; the establishment of a communications network based on the telegraph and

telephone; and the steady increase in the size and predominance of cities. Images reflecting this progression appeared often on the book bindings of the day.

Pre-industrial book covers

[Go to <http://bindings.lib.ua.edu/sitesearch.html>, select the “Search by Keyword” link, and click on “Guided Search” at the top of the page. In the first search box, type in “pbw00935.” Click on thumbnail. Enlarge image by clicking on the largest box under it.]

What does this book cover tell you about life before the Industrial Revolution? Allow time for discussion.

[Go to “Guided Search.” In the first search box, type in “pba00134.” Click on thumbnail.]

What about this one? Take a few answers.

A majority of pre-industrial society lived in rural areas. Therefore, pre-industrial book covers often depicted agricultural themes. Farm equipment, crops, and symbols of agricultural abundance are plentiful on bindings from the earlier part of the publishers’ bindings era.

[Go to “Guided Search.” In the first search box, type in “pbw00355.” Click on thumbnail. Click on “Back” image.]

What does this book covers say about how society was changing? Allow time for discussion.

Urban development exploded as workers flocked to cities from farms and villages, and decorations on bookbindings likewise transitioned from rural to urban scenes. From 1860 to 1920, urban population increased twice as fast as the general population. By 1920, urban dwellers accounted for half of the population.

Technological advancements

Steam engine

[Go to “Guided Search.” In the first search box, type in pbw00875. Click on thumbnail.]
Technology contributed to the reshaping of the modern city. The pre-industrial city was largely pedestrian. By the end of the 19th century, mass transit was born. Part of the transportation revolution that occurred was the invention of the steam engine, which dramatically changed railroad and ship travel. Notice the large steamship in the center of this book cover.

Skyscrapers

Now look at the panel on the right, which depicts many tall buildings. The late 19th century saw a building boom, as banks, hotels, department stores, and office buildings

went up at a record pace. Previously, buildings had been limited to five stories, but new architectural material, and the invention of the electric elevator, allowed for buildings to grow taller. The first skyscrapers were built in the 1880s, and the skyscraper soon became a symbol of the modern and technological character of the urban landscape.

Telecommunication

[Go to “Guided Search.” In the first search box, type in pbw01355.]

Among the most revolutionary innovations of the time were those that allowed people to communicate over great distances: the telegraph and the telephone. The telegraph appeared first, and the telephone grew out of attempts to improve it. These advancements in communication characterized the innovative spirit of the industrial age, as well as its ability to connect people in different locales and expand the urban area.

Factories

[Go to “Guided Search.” In the first search box, type in pbw00758. Click on thumbnail.]

The symbol that became most synonymous with the industrial revolution was the factory. Writers—and bookbinders—often used factories and the machines contained in them to represent the complex nature of industry as both a positive and negative part of modern American life.

Discussion

Make a pros and cons chart on the board for the first two questions. Depending on the students’ knowledge on the subject—through prior class sessions or reading—the instructor may need to help students think of answers.

What might some of the benefits of the Industrial Revolution be? (Some possible answers: New inventions allowed for modern conveniences, ability to travel farther and communicate with people over great distances, ability for some people to make more money.)

What negative impacts can you think of? (Some possible answers: Pollution, people working long hours in unsafe conditions, destruction of natural resources, fewer people producing agricultural products.)

Let’s think now about how goods were made. Take the example of clothing. How do you think clothes were made before the Industrial Revolution? (Answer: Sewn by hand.)

How do you think the revolution changed that? (Answer: Clothes were made in factories, by machine.)

The same is true of many other goods. Before the industrial revolution, they were produced by craftsmen; afterwards, they were mass produced by machines in factories.

[Add answers to this question to the pro column.] What would be the benefit to that? (Answer: More of the product could be made and it would be cheaper for the consumer.)

[Add answers to this question to the pro column.] What would be the drawbacks?
(Answers: Products would not be of as high a quality; many individual craftsmen would be put out of business.)

Considering all the pros and cons, do you think the Industrial Revolution ultimately was good or bad?

How do you think it affects us today?

Student Activities

Invention was an integral part of the Industrial revolution. The following age-appropriate activities teach students about the importance of invention.

Activity 1 (K-5)

Distribute paper and drawing/coloring implements.

During the Industrial Revolution, things that people invented made life easier. Think of one way that your life could be easier. Think of a product that would help make your life easier in that way. Draw a picture of that product.

Display student work so that everyone can see each others' designs.

Activity 2 (6-12)

Many of the technological advancements that took place during the Industrial Revolution came about thanks to the good ideas of individual inventors. Following the assignment description is a list of inventors who impacted technology during the Industrial Revolution. They either invented something during that time, or their invention was improved during the revolution.

Students should select or be assigned one inventor. A good way to do this is to cut out all of the names and place them in a bowl or hat, then have each student pull out a name. Ideally, each inventor will be assigned to only one student.

Each student will do research on his or her selected inventor to answer the following questions (It may be helpful to distribute the questions to students in an assignment sheet):

- 1) Short biography of inventor (birthplace, dates of birth and death, parents and their occupations, inventor's education, occupation, and spouse/children).
- 2) Provide a detailed description of the person's invention. (If there were many things, list them all but describe the most important in detail.) Include year of invention.

- 3) What led up to this invention? (Did the inventor see a need and try to meet it, or was it an accidental find?)
- 4) How did this invention impact technology during the industrial revolution?
- 5) How does this invention affect us today?

To conduct research, student could consult biographies of the inventor, books about his/her invention, and any primary sources available (such as diaries, autobiographies, letters, etc.). Internet sources are acceptable but should not be the only means of research.

Students should write a report answering these questions and including a bibliography of sources. They should be given up to one week to complete the research.

On the date the report is due, students should present their findings to the class. Presentation of reports may take more than one class period.

Inventors

Baekeland, Leo	Olds, Ransome Eli
Bell, Alexander Graham	Otis, Elisha
Carrier, Willis	Reno, Jesse
Carver, George Washington	Rillieux, Norbert
Cochran, Josephine Garis	Ritty, James
Eastman, George	Roebing, John
Edison, Thomas	Roper, Sylvester
Field, Cyrus	Seeley, Henry
Ford, Henry	Sholes, Christopher Latham
Fuller, George	Singer, Isaac
Hallidie, Andrew Smith	Tesla, Nikola
Howe, Elias	Thurman, John S.
Hyatt, John Wesley	Van Kannel, Theophilus
Miller, John A.	Watt, James
Morse, Samuel F. B.	Wright, Orville and Wilbur