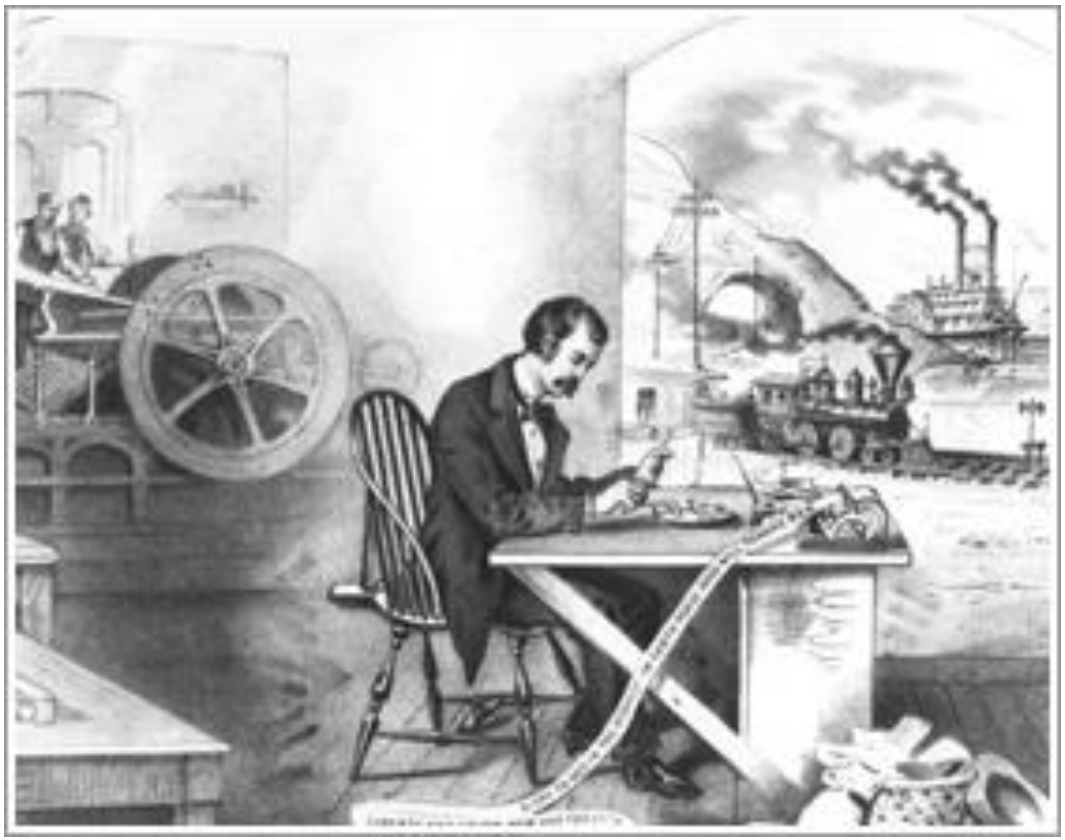
The Industrial Revolution

The Start of Mass Production

Section 1

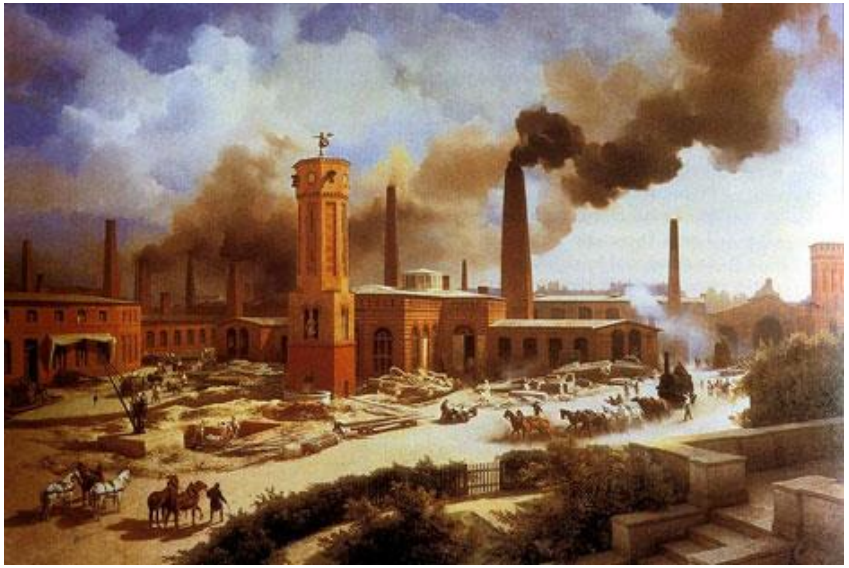
Beginnings of Industrialization

- Main Idea
  - The Industrial Revolution started in England and soon spread to other countries
- Why It Matters Now
  - The changes that began in Britain paved the way for modern industrial societies.



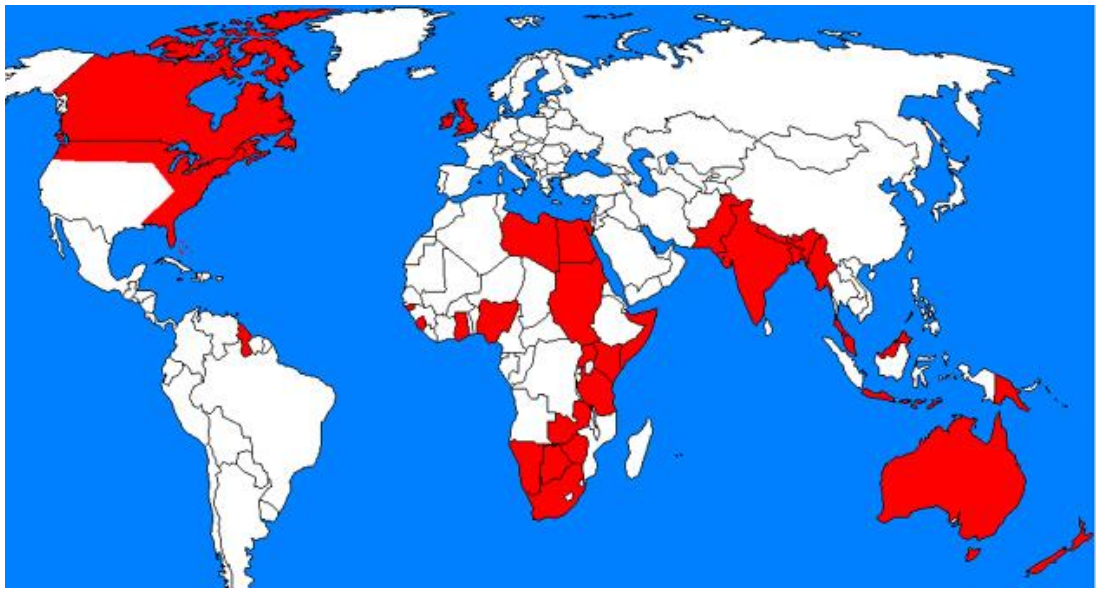
Industrial Revolution Begins in Britain

- Industrial Revolution
  - Increased production of manmade goods
  - Begins in the 18th century
  - Has the necessary factors of production
    - Land, labor (workers), capital (wealth)
- Reasons
  1. Economic Strength
  2. Geography and Natural Resources
  3. Population Growth
  4. Political Stability



1. Economic Strength

- New markets had existed for England with colonies as well as raw materials
- Money necessary for investments
- Banks offering loans
- Bank of England established 1694
- Entrepreneurs
  - Risk takers starting businesses and investing



2. Geography and Natural Resources

- Rivers offer two advantages
  - Water power
  - Transportation of your manufactured goods
- Rich in natural resources
  - Water
  - Coal and iron which will be necessary for fueling engines and what machines are made out of

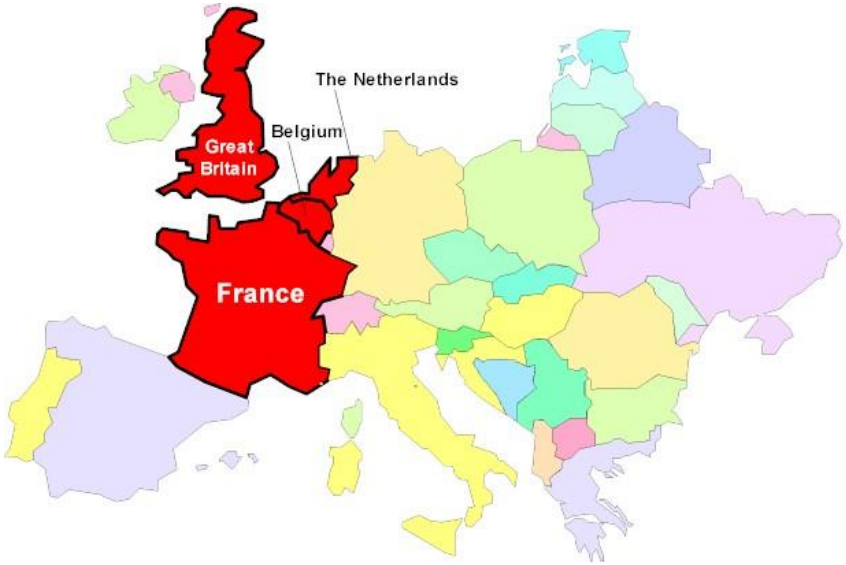
3. Population Growth

- Improvement in farming
  - Less people needed to grow crops
  - Agricultural Revolution
  - Jethro Tull invents seed drill
  - Crop rotation used
    - Planting a different crop in a different field each year
    - Steadier diet, more food available leads to longer lives

- Leads to the Enclosure Movement
  - Rich landowners buy out poorer farmers and enclose/fence/hedge their property
  - Leaves many without jobs and food
    - Still need goods and now have a labor force

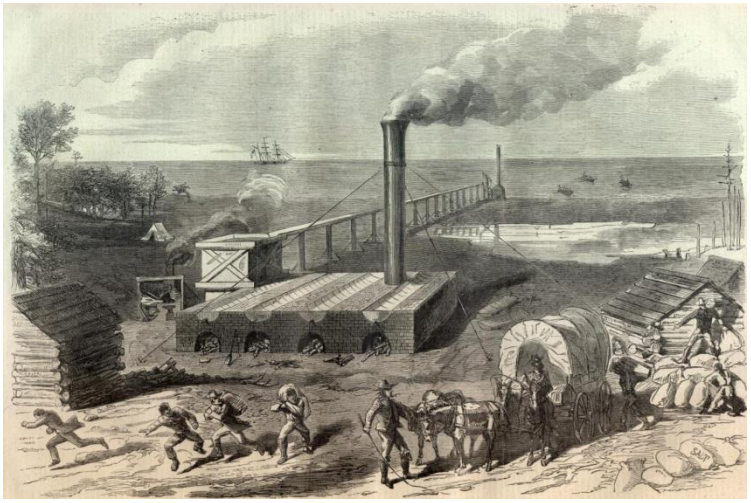
4. Political Stability

- Isolated island nation
- Never had to worry about war on its home ground
- Industrial growth not interrupted by war
- Kept style of government



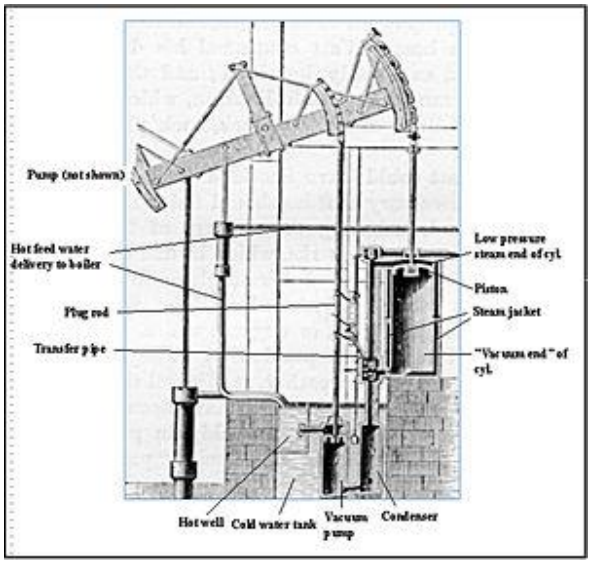
Inventions Spur Industrialization

- Industrial Revolution begins in the cotton/textile industry
- Eli Whitney
  - Cotton gin
  - Increases the need for slaves
- Factories are built to house these expensive machines
  - Built near rivers



Improvements in Transportation; The Railway Age Begins

- James Watt improves steam engine in 1769
- Leads to putting a steam engine on wheels
- Railroads provide efficient way of shipping goods
- Leads to Railway Age
  - More jobs available since infrastructure needs to be built
- Put steam engine on boats
  - Steamboat



Questions

- 1. What were four factors that contributed to industrialization in Britain?
- 2. What allowed for a population boom not only in Britain but worldwide as well?
- 3. How did rising population help the Industrial Revolution?
- 4. What American invention aided the British textile industry?
  5. Was the revolution in agriculture necessary to the Industrial Revolution? Explain.
- 6. What effect did entrepreneurs have upon the Industrial Revolution?
- 7. Do you agree with the statement that the steam engine was the greatest invention of the Industrial Revolution? Why or why not?
- 8. Yellow 33-36

World History - Industrialization Video

- Yellow Enrichment 33-36
- Same piece of paper as your video questions
- Complete sentences and the letter answer.

Section 2
Industrialization
Case Study: Manchester

- Main Idea
  - The factory system changed the way people lived and worked, introducing a variety of problems.
- Why It Matters Now
  - Many less-developed countries are undergoing the difficult process of industrialization today.

Industrialization Changes Life

- Industrial Cities Rise
  - Factories need people to work in one place
- Urbanization
  - Rapid growth of cities
  - Mass migration to cities
  - Pull factor due to jobs

Table I Population of some cities in England in the Industrial Revolution

Cities	1801	1841
Manchester	35,000	353,000
Leeds	53,000	153,000
Birmingham	23,000	183,000
Sheffield	46,000	111,000

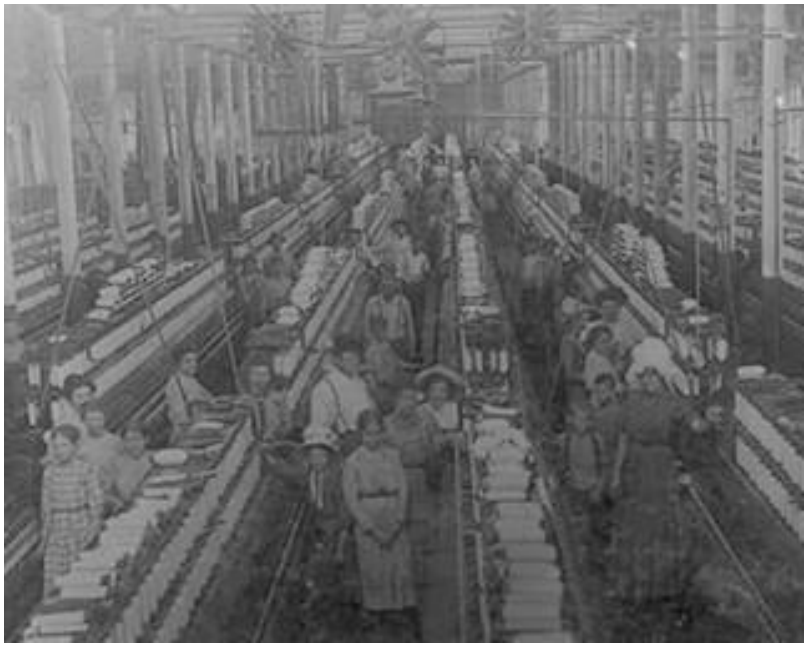
Source: Korn (1953, p. 67)

Living Conditions

- Cheap and overcrowded houses
  - Row housing, tenements
- Industrial pollution
- Sanitation
  - Street full of waste, contaminated water
  - Typhus, influenza, and cholera
- Inadequate fire and police protection
- Person city age expectancy 17 years, countryside 38

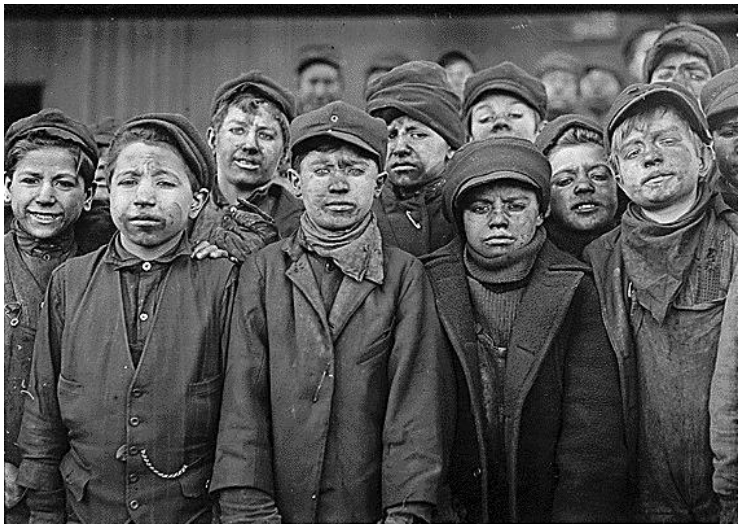
Working Conditions

- 14 hours a day, 6 days a week
  - Maximize productivity
- Dimly lit
- Dirty
- Women gain jobs but make less than men for doing the same jobs
  - Lived in boarding houses



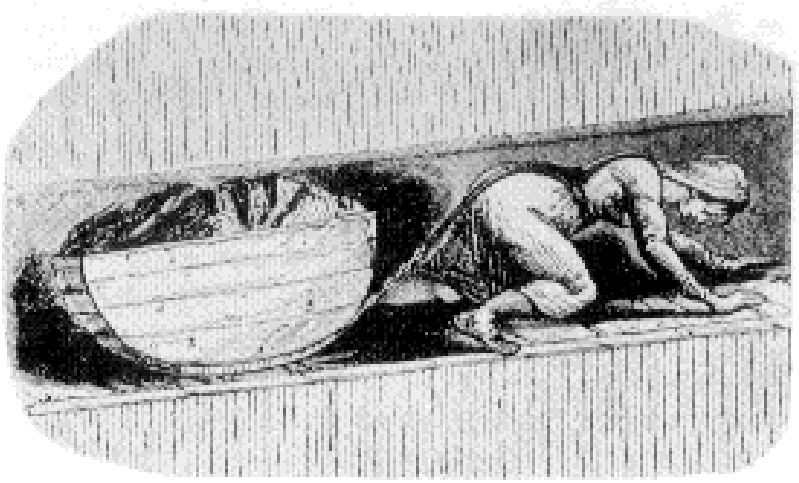
Class Tensions Grow

- Very rich upper class
  - Industrial owners and businessmen
- Middle Class
  - Skilled workers
  - Teachers, lawyers, shopkeepers, small businessmen
- Working Class
  - Factory workers and dependent laborers



Positive Effects of Industrial Revolution

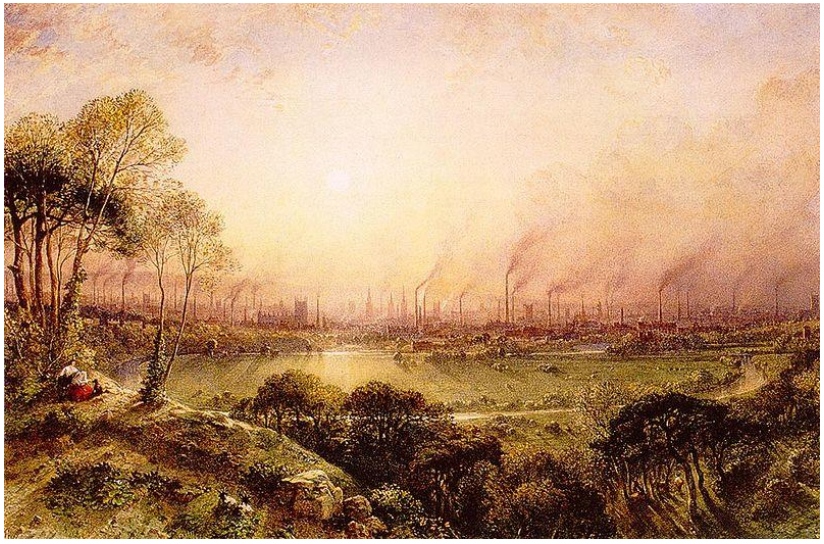
- Increased standard of living for most
- Increased amount of consumer goods bought/available
- Eventually infrastructures built
- Eventually worker rights



Mills of Manchester

- Perfect example of industrialization
- Worked for long hours with little benefits
- Many workers were children some as young as 6
  - Child labor laws not until 1819
- Coal smoke and cloth dyes polluted the air and water
- Same problems and benefits as mentioned before

1820



1857

- http://www.youtube.com/watch?v=zhL5DCizj5c

Questions

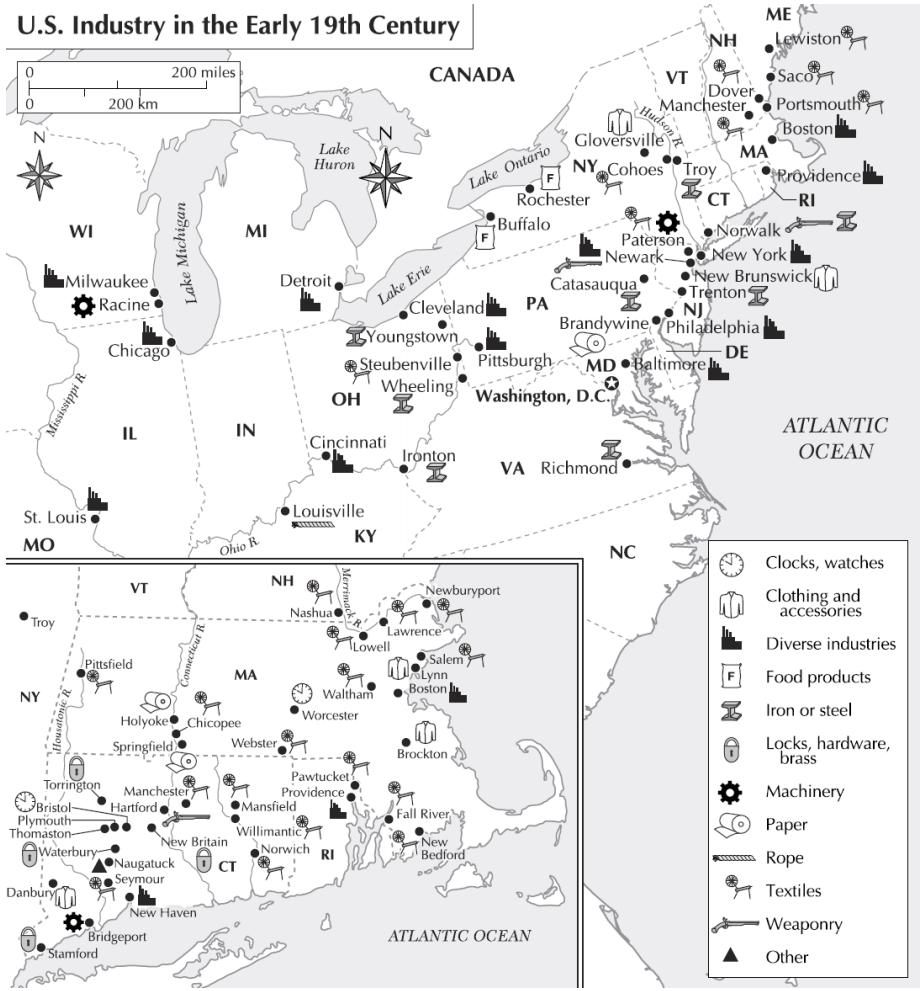
- 1. Read documents 1-4. Answer the questions that follow each.
- 2. Why did people flock to British cities and towns during the Industrial Revolution?
- 3. What social class expanded as a result of industrialization?
- 4. What were some of the negative effects of the rapid growth of Manchester?
- 5. How did industrialization contribute to city growth?
- 6. How were class tensions affected by the Industrial Revolution?
- 7. The Industrial Revolution has been described as a mixed blessing. Do you agree or disagree? Support your answer.

Section 3
Industrialization Spreads

- Main Idea
  - The industrialization that began in Great Britain spread to other parts of the world.
- Why It Matters Now
  - The Industrial Revolution set the stage for the growth of modern cities and a global economy.

Industrial Development in the United States

- Industrialization in the U.S.
  - Many immigrants came to the United States for economic opportunities
  - Great deal of coal and water as well as iron
  - War of 1812 caused America to industrialize
  - Starts in the Northeast
- Samuel Slater
  - Brought industrialization secrets to U.S.
- Francis Cabot Lowell
  - Started a factory town in Massachusetts which comprised mostly of women

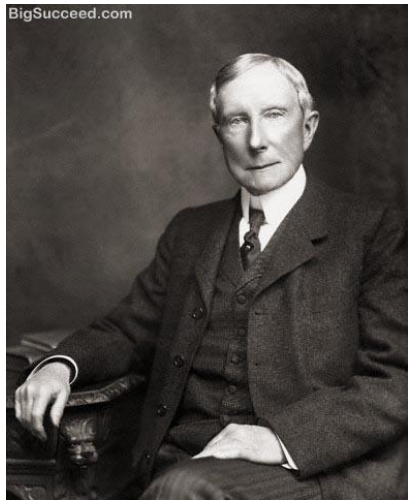


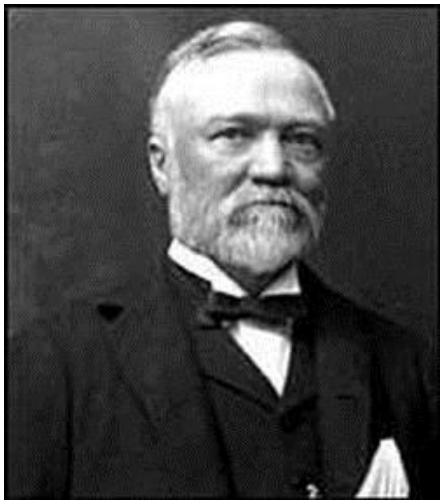
Later Expansion of U.S. Industry

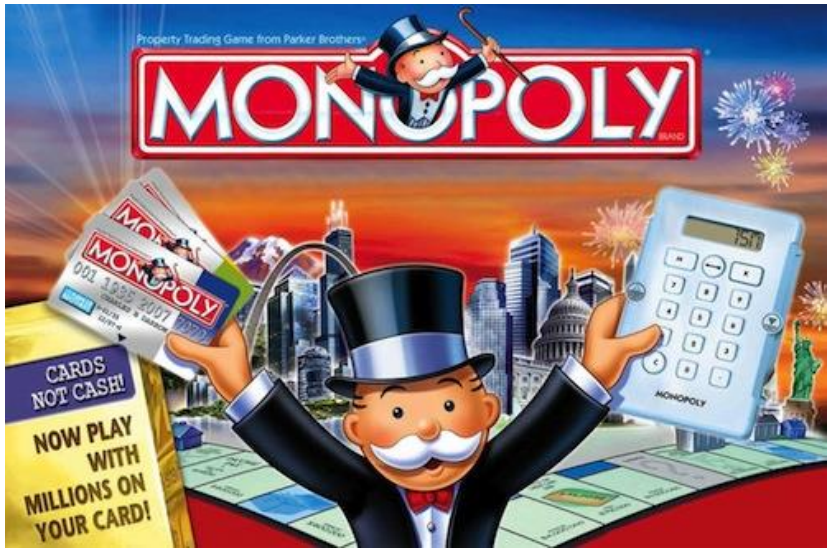
- Most expansion along railroad lines
- U.S. mostly agrarian (agriculture) nation until after the Civil War
- North has advantages since most factories are there and railroads

Rise of Corporations

- Monopoly
  - Control all aspects of a business
  - Difficult to compete
  - Richest men/companies can take losses as most cannot compete
  - Hurts the consumer
- Stock
  - Shares of ownership in a company
  - Used to generate revenue
- Corporation
  - Business organizations owned by stockholders

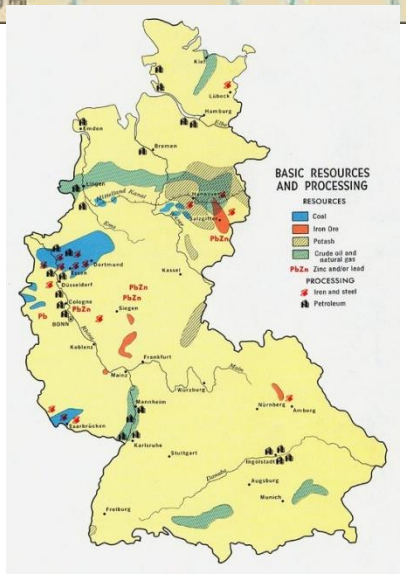






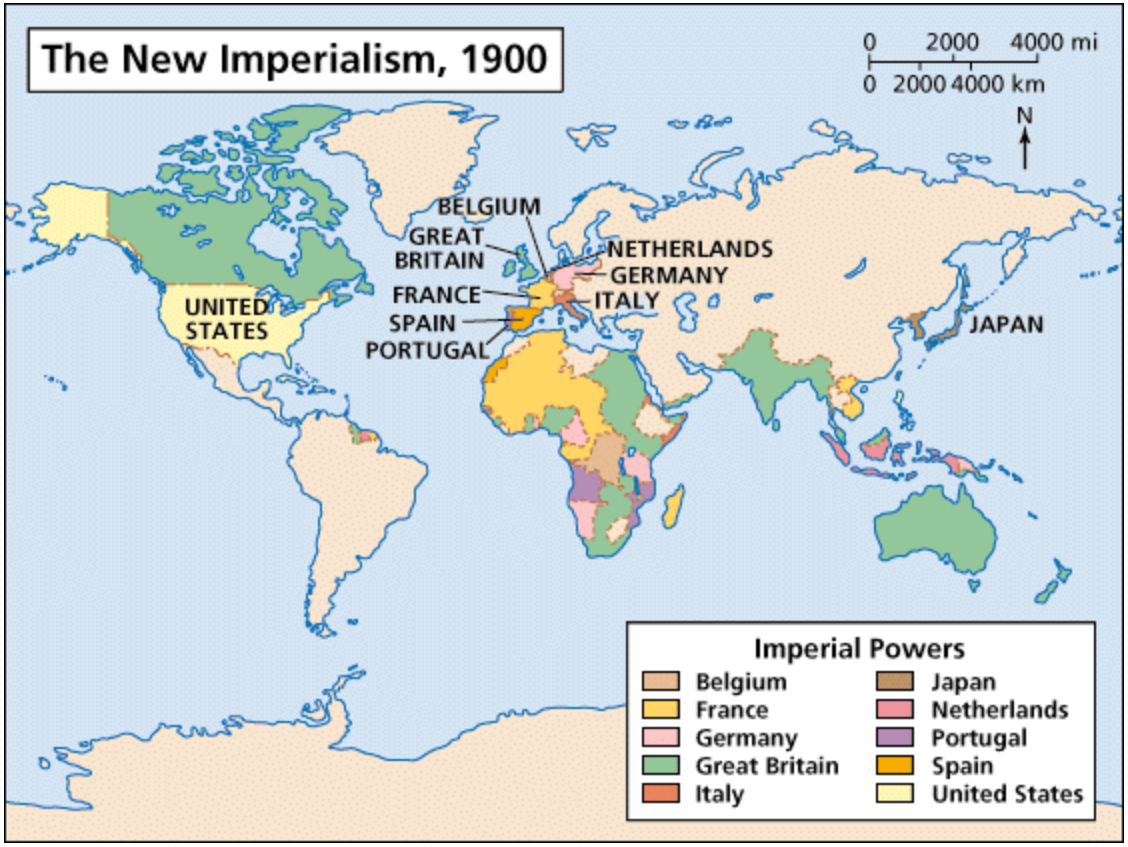
Continental Europe Industrializes

- Beginnings in Belgium
  - Has iron, coal, and water
- Germany Industrializes
  - Split politically until late 1800s
  - Rich in resources
  - Later becomes major power in both WWI and WWII
- Expansion Elsewhere in Europe
  - France remains mostly agrarian
    - disrupts European trade and industrialization during Napoleonic Wars



Impact of Industrialization

- Rise of Global Inequality
  - Industrialized nations became rich
  - Needed places to get raw materials and to sell their products
    - Leads to imperialism
- Transformation of Society
  - Factories, cities
  - Away from rural life



United Streaming - U.S. Industrialization Video

Questions

1. What early industries mechanized in the U.S.?
2. Why did Belgium lead Europe in adopting industrialization?
3. How did the Industrial Revolution shift the world balance of power?
4. Why was Britain unable to keep industrial secrets away from other nations?
5. What was the most significant effect of the Industrial Revolution?

SHEG

- Stanford History Education Group
- Reading Like a Historian

Central Historical Question:

Were textile factories bad for the health of English workers?

- Put in random groups.
- Read the document.
- Discuss the document.
- Verbally answer the guiding questions making sure to refer back to the text.
- Use evidence to answer the central question.
- Have one person write down your response to the central question making sure to use evidence from the document.

Things to think about while reading

- Who wrote it?
- When was it written?
- Who was the audience?
- What was the author’s purpose?
- Is the document a reliable source?

Central Historical Question:
Were textile factories bad for the health of English workers?

Document A

1. Why is Dr. Ward being interviewed by the House of Lords Committee?
2. What does he mean when he refers to factories as “nurseries of disease and vice?”
3. What evidence does Dr. Ward use to back his claim that factories were unhealthy and unsafe for children?

Central Historical Question:
Were textile factories bad for the health of English workers?

Document B

1. How is the source information for this document similar to and different from document A?
2. What evidence does Dr. Holme use to back his claim about the health of children in factories? Do you think this is convincing evidence?
3. Why might it matter that Mr. Pooley asked Dr. Holme to examine the children at his factory?
4. Which document, A or B, do you think is more trustworthy? Why?

Central Historical Question:
Were textile factories bad for the health of English workers?

Document C

1. What type of document is this? When was it written?
2. How old was John Birley when this account was published?
3. Which document, A or B, does this account more closely match?
4. Why did John Birley not tell the truth about life working in the mill to the inspectors?

Central Historical Question:
Were textile factories bad for the health of English workers?

Document D

1. Who wrote this article? When was it written?
2. Why did Baines write this article?
3. What does he mean in the second paragraph, when he states, “But abuse is the exception not the rule”?
4. What is Baines’ main point in the final paragraph?
5. Which document, A or B, does this account more closely match? How?
6. Why do you think is a more trustworthy source, Birley or Baines? Why?

Central Historical Question:
Do you think that English textile factories were bad for the health of working class families?

- Write a paragraph answer the question above, using evidence from the documents to support your claims.

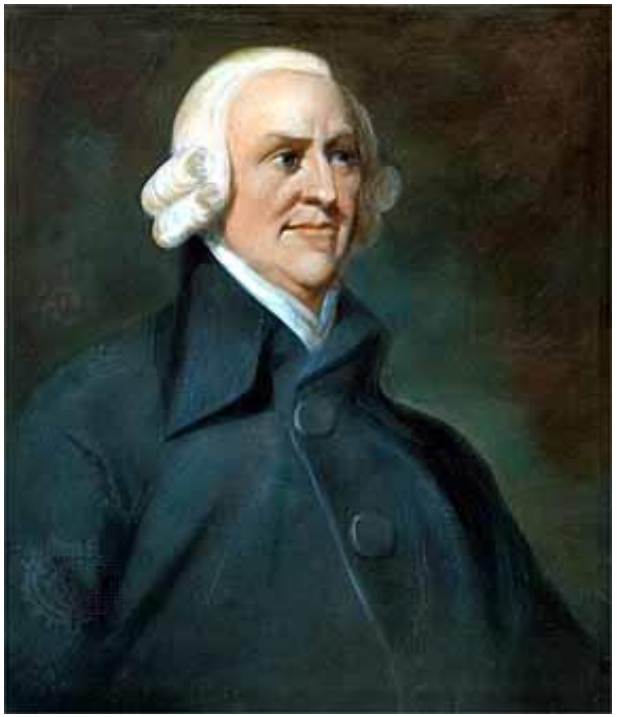
Section 4
Reforming the Industrial World

- Main Idea
  - The Industrial Revolution led to economic, social and political reforms.
- Why It Matters Now
  - Many modern social welfare programs developed during this period of reform.

Child Laborer, Newberry, SC, 1908

Philosophers of Industrialization

- Laissez-faire
  - "hands-off" government
  - Economic theory that says no government interference
  - Supply and demand will regulate the economy (invisible hand)
- Adam Smith
  - *Wealth of Nations*
  - father of capitalism
- Capitalism
  - Economic system emphasizes profit and private ownership
  - Factors of production owned privately
  - Benefits business owners
    - Upward social mobility available
  - Opposite of communism



Land

Capital

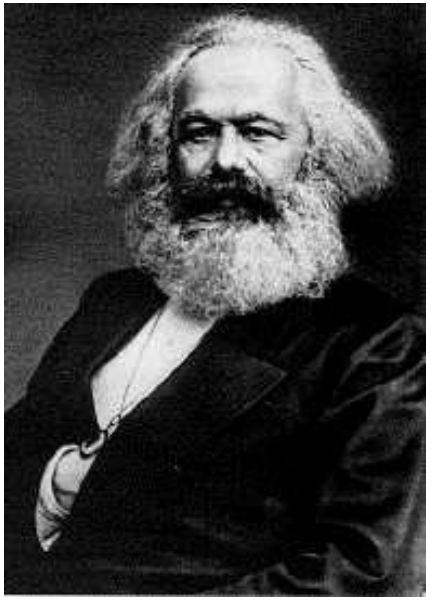
Labor

Rise of Socialism

- Utilitarianism
  - Judge things on their usefulness
- Utopian Ideas
  - People live and work together, sharing goods and property
- Socialism
  - Factors of production owned by the people and used to benefit all
  - Some believed capitalism was the cause of moral and ethical problems

Marxist Socialism

- Karl Marx
  - Father of Communism
  - *Communist Manifesto*
- Proletariat-working class
- Bourgeoisie-middle class
- Future
  - Revolution, violently overthrow middle class
  - Dictatorship of proletariat would be formed to abolish capitalism
- Communism
  - Both a form of government and economy
  - Extreme form of socialism
  - Workers should take control of all factors of production
  - No private property



Capitalism	Socialism
Individuals and businesses own property and the means of production.	The community or the state should own property and the means of production.
Progress results when individuals follow their own self-interest.	Progress results when a community of producers cooperate for the good of all.
Businesses follow their own self-interest by competing for the consumer's money. Each business tries to produce goods or services that are better and less expensive than those competitors.	Capitalism creates unequal distribution of wealth and material goods. A better system is to distribute goods according to each person's need.
Government should not interfere in the economy because competition creates efficiency in business.	An unequal distribution of wealth and material goods is unfair. A better system is to distribute goods according to each person's need.

Labor Unions and Reform Laws

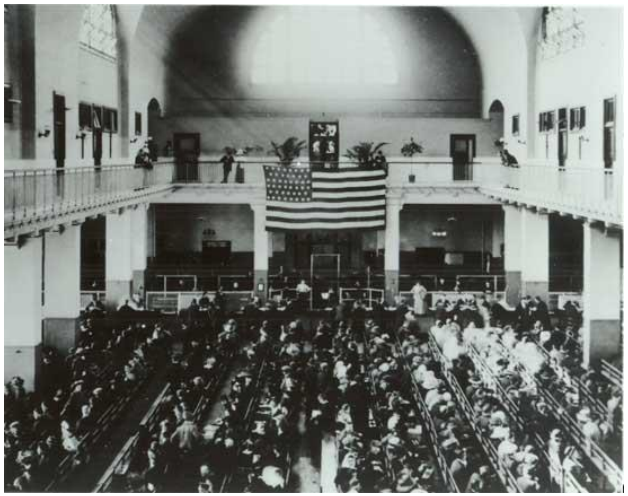
- Unions
  - Organization that speaks for the workers it represents
  - Collective bargaining
    - Negotiations led by the union to resolve disputes between workers and employees
- Unionization
  - At first outlawed in many countries because it hurt businesses and could threaten capitalism
- Strike
  - Work stoppage, workers refusing to work

Reform Laws

- Unions fought for better rights and got laws passed
- End child labor
- Factory Act of 1883
  - British law limiting hours of each workday, better working conditions, safer, better pay
- Public education is stressed
  - Children received education since no longer allowed to work
  - Horace Mann
    - Advocate for education in the U.S.

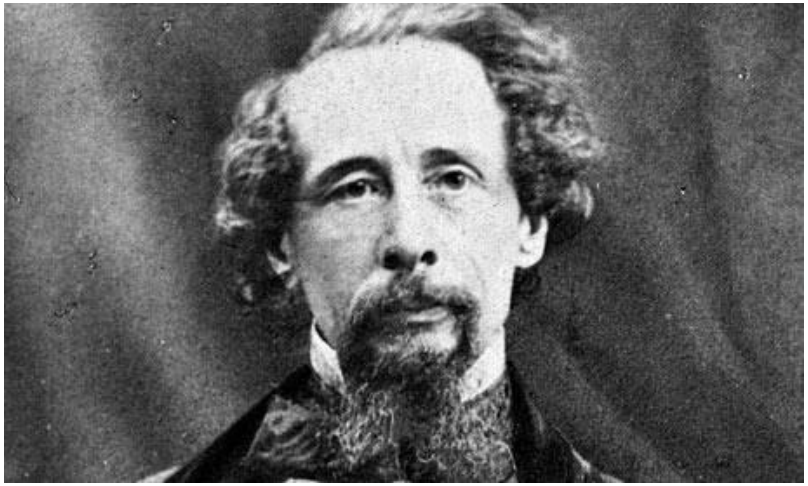
Reform Movement Spreads

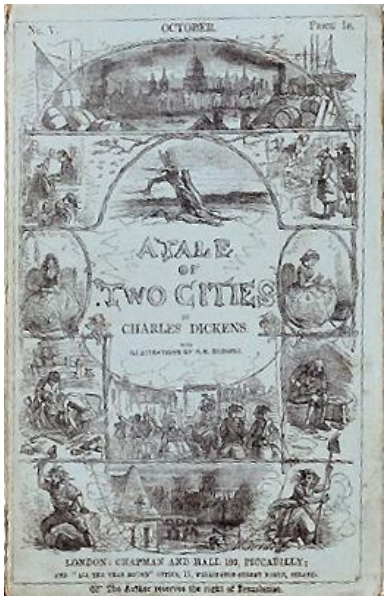
- Abolition of slavery
  - Industrialization more profitable than slave trade
  - Economics and morality help end
- Fight for women's rights
  - Women also fought for abolition
  - Women's suffrage
    - Right to vote
- Immigration to the United States because of economic opportunity
  - By 1870s roughly 2000/day



Charles Dickens

- Romantic writer
  - *Hard Times*
  - *A Tale of Two Cities*
- Romanticism
  - Art movement that talked about horrors of Industrialization
  - Loved past times





Freedom, A History of US

- Safari.sandi.net

Questions

1. What kind of society did early socialists want?
2. Why did workers join together in unions?
3. What was the main problem faced by the unions during the 1800s and how did they overcome them?
4. Why do you think that Marx's "dictatorship of the proletariat" did not happen?
5. Why did the labor reform movement spread to other areas of life?