William and his sister rose as early as 4:00 or 4:30 in order to get to the factory by 5:00. Children usually ate their breakfast on the run.

12 a.m. The children were given a 40-minute break for lunch. This was the only break they received all day.

3 p.m. The children often became drowsy during the afternoon or evening hours. In order to keep them awake, adult overseers sometimes reported:

4 p.m. There was no break allowed for an evening meal. Children again ate on the run.

9 p.m. William Cooper's day ended after an exhausting 16-hour shift at work.

11 p.m. Cooper's sister and another two hours even though she had to be back at work at 5:00 the next morning.
CH. 9.1
THE BEGINNINGS OF INDUSTRIALIZATION
Objectives


2. List one invention created to speed up industry.

The Industrial Revolution

- Industrial Revolution - during the mid 1770s, factory machines replaced hand tools, and large-scale manufacturing became the norm starting in England, then spreading to Continental Europe and then to the United States.
Agricultural Revolution

*** Wealthy land owners begin to fence in land, known as **enclosures**.

2 consequences:

1. Experiment’s with more productive seeding and harvesting methods boost crop yields
2. Large landowners force small ones to either:
   a. Become tenant farmers
   b. Quit farming / moved to cities to work in factories
   c. Machines increased productivity!

*Seed Drill*
Science in Farming

Crop Rotation

- Crops are rotated from season to season to allow soil nutrients to be replenished

-Agricultural Revolution
Industrial Revolution Begins

- England 1700
  - With dramatically improved farming methods more food is produced than ever before
  - According to the chart what increased as a result of more food production?

![England's Population Growth Chart]
Effects of Agricultural Revolution on England’s Population

Textile = cloth
Why did the Industrial Revolution begin in England?

- England had:
  1. Large population
  2. Natural resources

- Both necessary for **Industrialization**:
  - Increase of machine made goods over hand made goods

---

### Evils of Industrialization
Natural Resources needed:
1. Coal to fuel new machines
2. Iron ore to make tools, machines
3. Rivers to transport
4. Harbors for merchant ships
5. Water power

- British advanced banking system allows:
  - Bank loans allow owners to invest in new technology to become more efficient
  - Invest in developing industries
• British Political Stability
  • No wars are fought on British soil, provides stability

***England has all factors of production:
  1. Land
  2. Labor (workers)
  3. Capital (wealth)
Inventions Spur Industrialization

- **Cotton Industry**
  - John Kay (1733)
    - “flying shuttle”
      - Doubled the output of cotton
  - James Hargreaves (1764)
    - “spinning jenny”
      - Allows one worker to spin eight instead of one thread
  - Richard Arkwright (1769)
    - “water frame”
      - **Water power** replaces man power**
• Eli Whitney (U.S. 1793)
  • “Cotton Gin” removed seeds from raw cotton
  • 1790-1810 American cotton production jumps from 1.5 to 85 million lbs.

• 1st factories built near streams for water power
Improved Transportation

• The need to move products from factory to market

• James Watt (1765)
  • Mathematical instrument maker
  • **Creates a more efficient steam engine**

• Robert Fulton (1807)
  • Makes steamboat called Clermont

The *Clermont* Steamboat

[Image of the Clermont Steamboat]
England (1850)
- Creates network of man-made canals
- Used to transport raw/finished goods throughout England

- Investors form companies that built turnpike roads:
  - Toll roads and charged $ to pass

John McAdam
Turnpike Roads
• No Turnpike Roads =
English Railroad

- George Stephenson (1825)
  - World’s first railroad in England
    - 27 miles.
- Liverpool-Manchester RR (1830)
  - Stephenson designed locomotive called “Rocket”
    - Could pull 13-ton load @ 24 mph.
Trains Grew Advanced
4 Effects of Railroad Revolution in GB

- Transport goods to for business
- New jobs for miners and R.R. conductors
- Travel in short amount of time
- Transport light and heavy goods
55 Ways...Et

• See notes print out for directions on this exit ticket
Industrialization
Objectives

• Describe the social and economic effects of industrialization.

• Understand the tensions between the middle and working class

• Identify the positive effects of the Industrial Revolution.
Industrialization in GB

- Unhealthy work conditions, human suffering
- Pollution water and air
- Exploitation of factory workers and children
- Class tensions, middle class versus upper class

Exploitation - selfish utilization to get profit.

Long Term Effect - raised the standard of living in GB
Industrialization Changes Life England

- Industrialization **accelerates** rapidly in GB.
  - People earned wages in factories
    - People “**believe**” they could afford:
      - To heat house with coal
      - To eat Scottish beef
      - Warmer clothing
  - What are the consequences of this?

Stay ahead of the rat race
Industrial Cities Rise In England

- After 1800 population shifts to cities
  - Factories located in cities
  - People went to find jobs
  - Most urban areas double in population
    - Known as **urbanization:**
      - The City!
• Textile Factories develop first in groups
  • Built near sources of energy, like water and coal
• London becomes capital of GB
  • Becomes Europe’s largest city
    • Twice as many people as Paris
Living Conditions

• Because England's cities grew so rapidly
  Cities don’t have:
  • Urban development plans
  • Sanitary codes
  • Building codes
  • Consequences?

• Inadequate:
  • Housing
  • Education
  • Police

Working Class Housing
• Most streets unpaved
  • No drains
  • Garbage collects in piles
• Housing
  • Shelters were dark/ dirty
  • Families live in 1 room apartments.
• Sickness was widespread
  • Cholera (deadly) epidemics would sweep through the slums, regularly

Cholera: water-borne disease, caused by bacteria, transported by water
Working Conditions

- Owners wanted factories running as many hours as possible. Why?
  - Average work day 14 hours, 6 days a week
- Work is the same day after day, week after week and year after year
Child Labor
Factories
- Most not well lit
- Moving parts of machines exposed
  - Workers lose limbs
- Boilers would explode
- No govt. aid in case of injury

Coal Mines
- Conditions damp
- Breathing of coal dust shorten workers' lives by 10 years
Class Tensions Grow

- Industrial Revolution creates enormous wealth in the nation
  - Most of wealth goes to owners, shippers, merchants
    - All part of growing middle class:
  - Working class remains poor
Class Wars!

**Upper Class**
- Aristocrats and landowners
- Prosper immediately in Industrial Revolution
  - With wealth came social, political power
  - Upper Class views new middle class as vulgar

“Somewhere where the mosquitos bite only the working classes.”
• **Working Class**
  • **1800-1850**
    • Workers see little improvement in working and living conditions
      • **What is the consequence?**
    • **Luddites:**
      • Workers who began destroy labor saving machinery
      • Rioted outside factories
      • Protesting begins
Positive Effects of Industrial Revolution

- Creates jobs
- Contributes to wealth of nation
- Technological progress, invention
- Raised the standard of living, production of goods
- **Provides hope for a better life**

These guys have become billionaires within the last 20 years.
• Expands educational opportunities
  • Business’s need clerical, engineers etc.
• Long term effects
  • Tax revenue allows countries to invest in urban improvements
  • Standard of living rises in GB
William Cooper began working in a textile factory at the age of ten. He had a sister who worked upstairs in the same factory. In 1832, Cooper was called to testify before a parliamentary committee about the conditions among child laborers in the textile industry. The following sketch of his day is based upon his testimony.

5 A.M. The workday began. Cooper and his sister rose as early as 4:00 or 4:30 in order to get to the factory by 5:00. Children usually ate their breakfast on the run.

12 Noon The children were given a 40-minute break for lunch. This was the only break they received all day.

3 P.M. The children often became drowsy during the afternoon or evening hours. In order to keep them awake, adult overseers sometimes whipped the children.

6 P.M. There was no break allowed for an evening meal. Children again ate on the run.

9 P.M. William Cooper’s day ended after an exhausting 16-hour shift at work.

11 P.M. Cooper’s sister worked another two hours even though she had to be back at work at 5:00 the next morning.
55 Ways...Et

• 5) So what? Journal
• Identify the main idea of the lesson. Why is it important?
Industrialization Spreads

CH. 9.3
Objectives

• Describe industrialization in the U.S. and Europe.
• Identify the effects of industrialization on the rest of the world.
• **Main Idea** - (Empire Building) 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
Setting the Stage

- English first to industrialize due to these advantages:
  1. Favorable geography
  2. Financial Systems (banks)
  3. Natural Resources

- British merchants 1st to build machines and factories

- Industrialization spreads to U.S. and rest of Europe (What do you need to industrialize?)
Industrial Development in the U.S.

- U.S. has same resources as England, allows us to **mechanize**: (The use of machines in place of manual labor or the use of animals)
  - River system
  - Coal and iron
  - Labor supplied by farm workers, immigrants
  - Who Else?

- **War of 1812**
  - British blockades U.S. ports
  - **Forces U.S. to develop industries that have been cutoff**
Child Labor During Industrialization
Industrialization in the United States

- Like England, industrialization begins in textiles
  - England forbids engineers, mechanics, toolmakers from leaving (Why?): Brain Drain
  - (1789) Samuel Slater
    - Immigrates to U.S. and builds a spinning machine from memory

Samuel Slater 1768-1835
• (1813) Francis Lowell
  – Mechanized every stage of cloth manufacturing
  – Money is used to fund a larger textile operation in Lowell, Massachusetts
    • Becomes a model for industrialized towns
Mill Girls

- Women begin to flock from farms to factory towns
- Higher wages, independence
- Watched closely both inside/outside of factory
  - Why?
- 12 hrs a day, 6 days a week
- Alternative for women was: Servant
Later Expansion of U.S. Industry

- Northeast industrializes 1st
  - U.S. primarily agricultural until the Civil War ends

- (1865) Industrial boom begins
  - New inventions
    - Telephone
    - Electric light bulb
  - Growing urban pop. consumes manufactured goods
  - Railroads expand (Why Important)
  - U.S. has even more resources than England

(1840) Total track 2,818

(1890) Total track 208,152
Rise of Corporations

• Large companies require a great deal of money

• Entrepreneur:
  • Organizer, operator of Corp.
  • Sells stock to raise $ for business

  – Stock:
    • Individual shares of company
      – In essence become part owner of company, shareholder

  – Corporation:
    • Owned by shareholders:
      – Share in profits, not responsible for company debts
      – Bought machines with profits
• Large corporations form:
  – **Standard Oil**
    • Owned by John D. Rockefeller
  – **Carnegie Steel Company**
    • Owned by Andrew Carnegie

• **Become known as Big Business**
  – Sought to control entire industry to maximize profits
  – Corporate leaders, stockholders earn high profits
    • High profits earned on backs of workers
(1835) Germany industrializes

- 1789-1815
  - French Revolution and Napoleonic wars slow industrialization

- Germany
  - Built railroads that link manufacturing cities with natural resources (where did cities need to be built in the beginning of Industrial Revolution?)
  - Sent children to England to learn industrial management
  - Allows Germany to afford large military (Who has the dominate Navy and most $?)
Other Euro. Countries Slow to Industrialize

- Transportation poses obstacle to industrialization
  - Austria-Hungary mountains *
  *Defeat railroad builders
  - Spain lacks useable waterways and good roads
  - **Both countries are slow to industrialize**
Impact of Industrialization

• Begins to shift **balance of power:**
  – Economics
  – Military
  – Politics

• Increases competition
  – Nations compete for resources

• Less developed nations become impoverished
  – Africa
  – South America
England exploits overseas colonies for resources.

- Why?
- Other countries like U.S., France, Japan follow lead

- What is this called?__________________ (answer)
Society Transforms

• 1700-1800
  – Peoples lives changed by revolutions in:
    1. Agriculture
    2. Production
    3. Transportation
    4. Communication
  – Asia, Africa, South America, economy based on agriculture, slow to industrialize.

• What effect does Imperialism have on this?
– Population, health, and wealth rise in industrialized nations

– Development of middle creates:
  1. Education
  2. Democratic Participation
55 Ways (ET)

- 48) COLOR CARDS

- I NEED HELP
- GOT IT
- I AM CONFUSED
Reforming the Industrial World

Chapter 9.4
Objectives

• What are the main concepts of Capitalism?
• What are the main concepts of socialism and Marxism?
• What were the reform movements of the 1800s?
Reforming the Industrial World

Background…

• **Main Idea**
  – The Industrial Revolution led to
    • Economic growth
    • Political
    • Social Reforms

• **Why It Matters**
  – Several Economic theories developed during this period.

• **Setting the Stage**
  – Ind. Rev. creates wide gap between rich and poor
    • RICH: want govt. leave business alone
    • POOR: want help from govt.
    • WORKERS: want reasonable hours, more pay, safe work environment
Economic Philosophies

Laissez-Faire Economics:

– “let people do as they please” Hands Off!
– Want free market, no govt. interference
  • Owners set working conditions
    – No minimum wage
    – No minimum workday
  • Competition regulates product pricing
– What are some problems with this theory?

Who do the people represent?
Capitalism

Private Ownership
Private Control
Private Planning
• Adam Smith
  – (1776) *The Wealth of Nations*
• Professor in Scotland
• **3 laws of Econ.**
  1. Self-interest:
     – People work for their own good
  2. Competition:
     – Competition forces better product
  3. Supply and Demand:
     – Enough stuff produced at the lowest price to meet demand
Capitalism = Private Ownership

*Factors of production:

1. Raw materials
2. Factories
3. Products
4. Income
5. Demand

• ** 1-3, ALL PRIVATELY OWNED**

– $$$ invested in businesses to make profit
Socialism

Govt. Ownership AND Control OF THE WORK force

• All aspects of work…all!
• Ideas evaluated on usefulness towards the greatest good for the greatest number of people

Utilitarianism
Socialism

- Factors of production:
  - All owned by public/govt.
    - No private businesses
    - Shares the products with ALL
  - **Grows out of optimistic view of human nature**
    - Are all people good?

(1886) Walter Crane

The vampire bat of capitalism, sucking the life out of the laborer.
Marxism

– Karl Marx

– Communist Manifesto

• Society organized into 2 classes (during 1800’s)
  1. Bourgeoisie: middle class, the “haves”
  2. Proletariat: lower class, the “have-nots”

• Ind. Rev. made the rich (owners) richer, poor (workers) poorer

(1818-1883) Karl Marx
Marxism

• PLAN
  * Workers overthrow the rich (Capitalist Class)
    – Start a government of the people “dictatorship of the proletariat”
    – Share everything
    – After period of cooperative living, and EDUCATION, govt. would cease to exist.

• Only a classless society would remain a.k.a.: COMMUNISM
• **Communism**
  – Marxism’s final phase
  – **Total Socialism**
    • Everything controlled by the people
    • Everyone is educated
    • No private businesses
    • No government
    • People own and share everything
    • No classes
    • No Religion
  – **Communist Manifesto inspires Lenin, Mao, and Fidel Castro**
    • Never reach final phase of communism, why?

Is this true?

By pirating music, are you a communist?
Labor Unions

• Workers bond together for common goals;
  – Better pay (Wages)
  – Better hours
  – More protection
  – Better working conditions

• WORKERS FORMED UNIONS:
  – Organization that fought for the workers
  – Used strikes, walkouts to accomplish goals
  – Worked in both US and GB
    • **Must have a needed skill**
Reform Laws

- **Unions** helped to pass laws to help workers in England:
  - Factory Act 1833
    - Can’t hire children under 9 yrs. old
  - Mine Act 1842
    - No women or children in mines
  - Ten Hours Work Act 1847
- (1904) National Labor Committee U.S.
  - States end child labor

Where does modern **child labor** occur?

What nation has the fastest growing economy?
Slave Trade

• Slavery based on need in agriculture economy
  – Most slaves worked on large plantations
  – New inventions lessen the need for slaves

• Humanitarian forces

• Countries become more industrialized

• Slavery outlawed by late 1800’s
Reform Spreads

- **Women’s Rights**
  - Fight for better pay, voting rights, and help for the poor
  - US women did not get right to vote until 1920

- **Education**
  - Free education for all, kids out of factories
  - Prison reforms
    - Help prisoners be productive once released

Are women under paid now?
<table>
<thead>
<tr>
<th><strong>Capitalism</strong></th>
<th><strong>Socialism</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Individuals and businesses own property and the means of production.</td>
<td>• The community or the state should own property and the means of production.</td>
</tr>
<tr>
<td>• Progress results when individuals follow their own self-interest.</td>
<td>• Progress results when a community of producers cooperate for the good of all.</td>
</tr>
<tr>
<td>• 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 of competitors.</td>
<td>• Socialists believe that capitalist employers take advantage of workers. The community or state must act to protect workers.</td>
</tr>
<tr>
<td>• Consumers compete to buy the best goods at the lowest prices. This competition shapes the market by affecting what businesses are able to sell.</td>
<td>• Capitalism creates unequal distribution of wealth and material goods. A better system is to distribute goods according to each person’s need.</td>
</tr>
<tr>
<td>• Government should not interfere in the economy because competition creates efficiency in business.</td>
<td>• An unequal distribution of wealth and material goods is unfair. A better system is to distribute goods according to each person’s need.</td>
</tr>
</tbody>
</table>
• 18) 5 Words

1) What 5 words would you use to describe socialism?

2) What 5 words would you use to describe capitalism?

3) What 5 words would you use to describe Karl Marx?
The Day of a Child Labourer, William Cooper

The children were given a 40-minute break for lunch. This was the only break they received all day.

3.30 pm. The children often became thirsty during the afternoon or evening hours. In order to keep them awake, adult overseers often offered them coffee or tea.

6.00 pm. There was no break allowed for an evening meal. Children often ate their breakfast on the run.

9.00 pm. Cooper’s day ended after an exhausting 16-hour shift at work.

11.00 pm. Cooper’s sister worked another half-hour, even though she had to be back at work at 5:00 the next morning.
Find your Scantron! ...coming soon