

II. Factories and Workers

Chapter 7: The Industrial Revolution

Academic Standards

<ul style="list-style-type: none"> • History • Industrialization B • 3. Explain the causes and effects of the Industrial Revolution • with emphasis on: 	<ul style="list-style-type: none"> • History • Industrialization B • 3. Explain the causes and effects of the Industrial Revolution • with emphasis on: <ul style="list-style-type: none"> • a. how scientific and technological changes promoted industrialization in the textile industry in England; • b. the impact of the growth of population, rural-to-urban migrations, growth of industrial cities and emigration out of Europe; • c. the changing role of labor and the rise of the union movement; • d. changes in living and working conditions for the early industrial working class, especially women and children; • e. the growth of industrialization around the world.
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Factories and Workers: MAIN IDEA

- The transition from cottage
- industries changed
- how people worked in factories,
- what life was like in factory towns,
- labor conditions,
- processes within factories.

II. Factories and Workers

- **A. Production before Factories**
- **B. Factories and Factory Towns**
- **C. The Factory System and Workers**
- **D. Factories and Mass Production**

Cottage Industry




<ul style="list-style-type: none"> • A. Production before Factories 	<ul style="list-style-type: none"> • This scene of textile workers making cloth at home was a common one until the late 1700s.
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Type of Economy: Traditional


Type of Economy	Role of Government	Role of Citizens
Traditional (inherit)	Government allows decisions to be made based on a society's traditions and customs.	BEFORE INDUSTRIAL REVOLUTION: citizens performed same jobs as parents/grandparents

A. Production before Factories: Cottage Industry




- **Focus Question 1:**
- **1. How was production organized before factories?**
- in small **cottage industries**; a family worked together in their homes to produce goods such as cloth or barrels

A. Production before Factories: Cottage Industry



- **1. a. Describe How did the textile business work when it was a cottage industry?**
- merchant brought wool to cottage,
- weaver made the cloth,
- merchant took cloth to market

Production before Factories: Cottage Industry



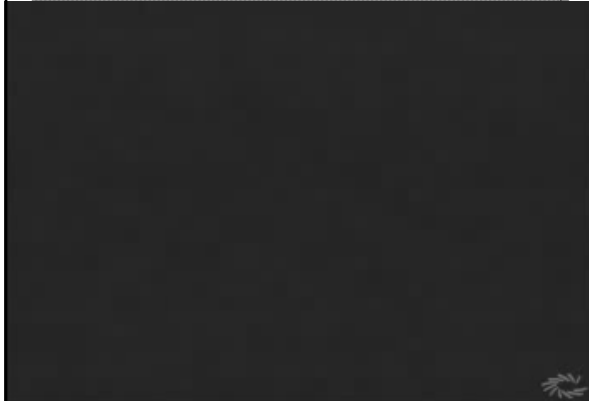
- **1b. Compare: List some advantages and disadvantages of cottage industry.**
- **advantage**—worker could adjust schedule;
- could work faster when they needed to earn more money
- made their own decisions on when to work and rest
- **Disadvantage**--fire or flood could destroy home's equipment could ruin a family in an instant.
- demanded a range of technical skills -- skills that took a long time to learn.
- Only adults had the physical strength that some jobs, such as weaving on a loom, required.

Production before Factories: Cottage Industry

Production before Factories

<p>Work in the Home</p> <ul style="list-style-type: none"> • Raw materials delivered • Work done to completion • Merchant takes product to market • Workers controlled schedules, quality • Family life revolved around business 	<p>Problems for Cottage Industries</p> <ul style="list-style-type: none"> • Destruction of equipment • Time to learn skills • Physical strength required • Factory owners took advantage of drawbacks
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Cottage Industry



B. Factories and Factory Towns

- **Focus Question 2**
- **What were factories and towns like?**
- **Factories** were often dangerous; work divided into separate, easily-learned tasks; low wages; long hours.
- **Towns** were comprised of shoddy, close-packed company dwellings; polluted; poor sanitation.

Factory Towns



Industrial Town



Problems of Pollution



The New Industrial Town



Artist: Gustave Dore



Factory Towns



Factories

Windows were often small, locked closed, or nonexistent, making the factory dark with foul air.

Factory days often started at dawn and lasted until well after dark, with a very short break for lunch.

Smaller children worked under the machinery, where their hair, clothing, or hands could be caught and damaged by the spinning flywheels.

Foremen were responsible for productivity and sometimes beat children to make them work faster.

Children often started work at 4 or 5 years of age, working 12 hours or more six or seven days a week.

Illustration of a factory in England in about 1800 showing the waterwheel that powered the machines, the thread-making machines, and the looms on the top floor.

DOCUMENT 1: Interview with Elizabeth Bentley
 In 1815 the British Parliament sent out researchers to interview child workers and learn more about factory conditions. Here is an excerpt from an interview with a young woman who had worked in a textile mill.

Q What were the hours of labour when you were not so thronged [busy]?

A From six in the morning till seven at night.

Q What time was allowed for meals?

A Forty minutes at noon.

Q Had you any time to get your breakfast or drinking?

A No, we had to get it as we could.

Q Do you consider doffing a laborious employment?

A Yes.

Q Explain what you had to do.

A When the frames are full, they have to stop the frames, and take the flyers off, and take the full bobbins off, and carry them to the roller, and then put empty ones on, and set the frame going again.

Q Does that keep you constantly on your feet?

A Yes, there are so many frames and they run so quick.

Q Your labour is very excessive?

A Yes, you have not time for anything.

Q Suppose you flagged [slowed down] a little, or were late, what would they do?

A Strap [whip] us.


Q And they are in the habit of strapping those who are last in doffing?

A Yes.

Q Constantly?

A Yes.

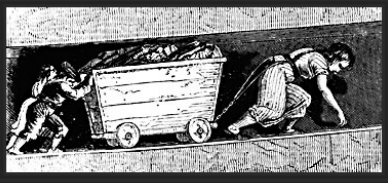
Children in Danger



- **Describe** What does the scene show?
- Does this illustration confirm or contradict what was said in the **interview with Elizabeth Bentley**

- Factory owners often preferred to hire children and women rather than men.
- Men expected higher wages, and employers suspected that they were more likely to rebel against the strict rules and conditions that were common in factories.
- **CONFIRMS:** The children were subject to harsh punishment if they were late, fell behind in their work, or talked too much.

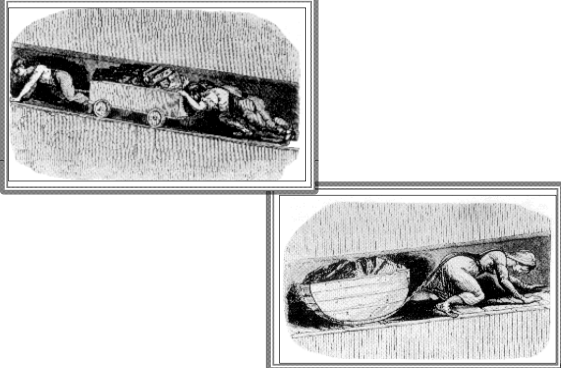
Children in the Mines



- **Describe** What would happen to the small children if the worker in the harness were to fall or stumble?
- **Infer** How do you think the person who drew this picture felt about children working in the mines?

- Children were hired to work in Great Britain's coal mines.
- In this drawing, you see an older, stronger worker wearing a harness and pulling a cart full of coal. Smaller children push the cart from behind.

Child Labor: Mines




Primary Documents

- John Charles Spencer was a member of the British Parliament's House of Commons. Although he supported some reforms for child workers, **he was against a proposed law to limit their work day to 10 hours.**
- *Now I appeal to the honourable member whether a measure which would prevent children from obtaining any employment in factories would not be more injurious than beneficial to the labouring classes?*
- *As long as we have a manufacturing population in the kingdom it will be impossible to render their occupation as wholesome as that of agricultural labourers, or persons engaged in out-door labour. This is an evil that cannot be remedied.*
- **Analyze** What social class does Spencer seem to represent, and whose interests is he upholding?


B. Factories and Factory Towns

- **2. a. Recall Why were early factory towns unhealthy?**
- coal caused thick, dark soot; chemicals in the air, pollution, poor sanitation




B. Factories and Factory Towns

- 2 b. Explain Why was factory work especially dangerous for children?
- could be injured while using machines



B. Factories and Factory Towns

- 2c. Infer If working in factories and living in the cities was so terrible, why did people stay?
- They had not other way of making a living



- The Industrial Revolution was a period in the late 1800s and early 1900s when big changes in agriculture, manufacturing, production, and transportation had a huge effect on the conditions in Britain.
- The changes quickly spread throughout Europe, North America, and eventually the world

Factories



B. Factories and Factory Towns

Factories and Factory Towns

Where employees worked

- Major change from cottage industry
- Had to leave home to work
- Hardships for some workers

Working in a factory

- Dangerous work for all
- Long workdays
- Poor factory conditions common

Life in factory towns

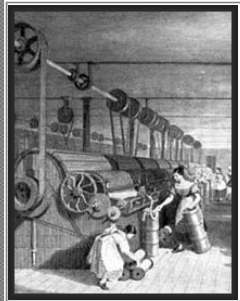
- Towns grew up around factories
- Towns, factories rose near coal mines
- Sanitation poor in many factory towns

C. The Factory System and Workers

- Factories changed more than just families and towns.
- Factories also transformed the very nature of labor, as industry moved from the home to the factory.

C. The Factory System and Workers

- Focus Question 3
- How did the factory system affect workers?
- Workers were only paid for hours worked;
- little incentive to improve performance;
- large supply of unskilled workers;
- employers preferred women and children.



C. The Factory System and Workers

- 3. a. Identify What was the structure of authority within the new factories?
 - business owner at top,
 - mid-level employees,
 - regular employees at bottom

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            graph TD
            A[Workers in a New Economy] --> B[wealthy business people to invest in and own the factories]
            A --> C[mid-level employees to run the factories and supervise the day-to-day operations]
            A --> D[low-level employees to run the machines]
            B --> B1[became very rich -- could buy anything they wanted]
            C --> C1[became the new middle class -- lived comfortably]
            D --> D1[barely made enough money to survive]
            
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C. The Factory System and Workers

- 3b. Infer What factors combined to keep workers' wages low?
 - business owners who cared only about making a profit,
 - workers were plentiful

C. The Factory System and Workers

- 3c. Evaluate Why might workers have been reluctant to hold a strike in the early years of the factory system?
 - At first, Parliament banned unions and strikes, fearing social and economic trouble.

C. The Factory System and Workers

- Draw Conclusions
 - Why did the British government ignore the problems of workers and unemployed?
 - The government did not believe these were government problems; thought people would lose incentive to work harder.

Type of Economy	Role of Government	Role of Citizens
Market (individuals)	Government exercises NO decision making in economic matters (laissez-faire)	Citizens pursue whatever type of business they wish. Economic decisions are made by individuals

C. The Factory System and Workers

vocabulary

- Explain
 - How did British workers react to the government's unwillingness to change labor conditions?
 - They organized and formed labor unions and went on strike.

- labor unions
 - organizations representing workers' interests—works to bring better working conditions and pay for workers
 - strike
 - work stoppages hoping to get better working conditions and pay

C. The Factory System and Workers

The Factory System and Workers

<p><i>Workers in a New Economy</i></p> <ul style="list-style-type: none"> Wealthy to invest in, own factories Mid-level to run factories Low-level to run machines <p><i>Changing Labor Conditions</i></p> <ul style="list-style-type: none"> No government regulation Labor unions organized Strikes brought change 	<p><i>Cottage Workers' Unrest</i></p> <ul style="list-style-type: none"> Handmade goods more expensive than factory made Luddite movement, 1811 Violence spread, 1812 <p><i>New Class of Workers</i></p> <ul style="list-style-type: none"> Growth of middle class Managers, accountants, engineers, mechanics, salesmen Economy increased
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Before the Factory System

- Goods were produced in the home.
- Work required a wide range of skills.
- Children did chores at home with the family.
- Families worked directly with merchants.
- Few people were members of the middle class.

**Before the
Factory
System**

After the Factory System

- Goods were produced in factories.
- Work required a few easily learned skills.
- Children were employed in large numbers in factories.
- Workers dealt with managers and, sometimes, factory owners.
- More people joined the middle class.

**After the
Factory
System**

D. Factories and Mass Production

Focus Question 4

- **What was mass production, and what were its effects?**
- It was a system of manufacturing large numbers of identical items; large increase in production, decrease in prices, standardization of measurements, repetitive jobs.

vocabulary

Assembly Line: Henry Ford

D. Factories and Mass Production

- **Describe: How was a product made before the development of interchangeable parts?**
- One skilled worker made the entire product; as a result each finished product was slightly different.

- **4. a. Define What were the two main components of the American System mass production?**
- interchangeable parts,
- identical machine-made parts
- assembly line
- system in which workers stay in one place, adding parts as items go by

vocabulary

D. Factories and Mass Production

- **4 b. Develop Why would the American system help many industries grow larger and richer?**
- allowed for increased production,
- lower prices,
- increased sales

D. Factories and Mass Production

Factories and Mass Production

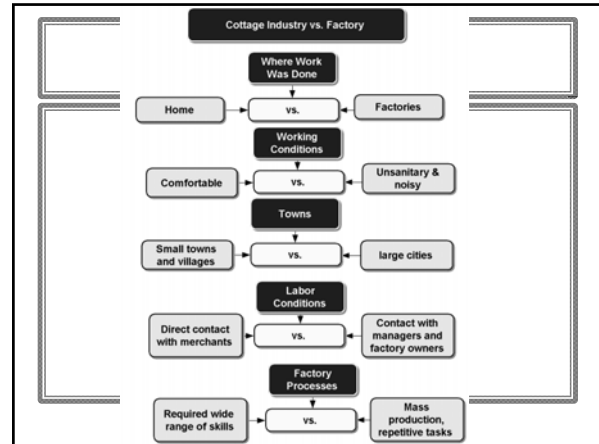
The factory system changed the world of work. In addition, new processes further changed how people worked in factories.

Mass Production	Effects
<ul style="list-style-type: none"> • Mass production began in U.S. • Elements: <ul style="list-style-type: none"> – Interchangeable parts – Assembly line • Production and repair more efficient • Production more swift 	<ul style="list-style-type: none"> • Dramatic increase in production • Businesses charged less • Affordable goods • More repetitious jobs • Soon became norm

Critical Thinking

- **Critical Thinking**
- **5. Analyze the chart by analyzing the effects of the factory system. Who do you think benefited the most and least from the changes?**
- factory owners benefited the most
- employees benefited the least

advantages	disadvantages
Increased production of goods	harsh/dangerous working conditions
able to sell at lower prices--made products affordable to consumers	pollution
able to supply consumer demands for the product	child mortality (deaths)
Increased profits	ended cottage industries



Narration

- **6. Narration Write a paragraph or two in which you describe the changes that a typical English town and its residents might have experienced in the 1800s as industries developed in the town.**

Factories and Factory Towns

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Economy

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