

## 20 – The Industrial Revolution

**Key Concept 3.1: The Industrial Revolution spread from Great Britain to the continent, where the state played a greater role in promoting industry.**

- I. Following the British example, industrialization took root in continental Europe, sometimes with state sponsorship
  - A. France moved toward industrialization at a more gradual pace than Great Britain, with government support and with less dislocation of traditional methods of production.
    - canals, railroads, trade agreements
  - B. Industrialization in Prussia allowed that state to become the leader of a unified Germany, which subsequently underwent rapid industrialization under government sponsorship.
    - *Zollverein*, investment in transportation network, adoption of improved methods of manufacturing, Friedrich List's National System
  - C. A combination of factors including geography, lack of resources, the dominance of traditional landed elites, the persistence of serfdom in some areas, and inadequate government sponsorship accounted for eastern and southern Europe's lag in industrial development.
    - lack of resources, lack of adequate transportation
- III. During the second industrial revolution (c. 1870–1914), more areas of Europe experienced industrial activity, and industrial processes increased in scale and complexity.
  - A. Mechanization and the factory system became the predominant modes of production by 1914.
  - B. New technologies and means of communication and transportation – including railroads – resulted in more fully integrated national economies, a higher level of urbanization, and a truly global economic network.
    - Bessemer process, Mass production, Electricity, Chemicals
    - Telegraph, Steamship, Streetcars or trolley cars, Telephones, Internal combustion engine, Airplane, Radio
  - C. Volatile business cycles in the last quarter of the 19th century led corporations and governments to try to manage the market through monopolies, banking practices, and tariffs.

**Key Concept 3.2: The experiences of everyday life were shaped by industrialization, depending on the level of industrial development in a particular location.**

- I. Over time, the Industrial Revolution altered the family structure and relations for bourgeois and working-class families.
  - A. Bourgeois families became focused on the nuclear family and the cult of domesticity, with distinct gender roles for men and women.
  - B. By the end of the century, wages and the quality of life for the working class improved because of laws restricting the labor of children and women, social welfare programs, improved diet, and the use of birth control.
    - Factory Act of 1833, Mines Act of 1842, Ten Hours Act of 1847
  - C. Economic motivations for marriage, while still important for all classes, diminished as the middleclass notion of companionate marriage began to be adopted by the working classes.
  - D. Leisure time centered increasingly on the family or small groups, concurrent with the development of activities and spaces to use that time.
    - Parks, Sports clubs and arenas, Beaches, Department stores, Museums, Theaters, Opera houses
- IV. A heightened consumerism developed as a result of the second industrial revolution.
  - A. Industrialization and mass marketing increased both the production and demand for a new range of consumer goods – including clothing, processed foods, and labor-saving devices – and created more leisure opportunities.
    - Advertising, Department stores, Catalogs
  - B. New efficient methods of transportation and other innovations created new industries, improved the distribution of goods, increased consumerism, and enhanced the quality of life.
    - Steamships, Railroads, Refrigerated rail cars, Ice boxes, Streetcars, Bicycles
    - Chemical industry, Electricity and utilities, Automobile, Leisure travel, Professional and leisure sports
- V. Because of the persistence of primitive agricultural practices and land-owning patterns, some areas of Europe lagged in industrialization while facing famine, debt, and land shortages.
  - The “Hungry ’40s”, Irish potato famine, Russian serfdom

**Key Concept 3.3: The problems of industrialization provoked a range of ideological, governmental, and collective responses.**

- I. Governments responded to the problems created or exacerbated by industrialization by expanding their functions and creating modern bureaucratic states.
  - B. Government reforms transformed unhealthy and overcrowded cities by modernizing infrastructure, regulating public health, reforming prisons, and establishing modern police forces.
    - Sewage and water systems, Public lighting, Public housing, Urban redesign, Parks, Public transportation
- C. Governments promoted compulsory public education to advance the goals of public order, nationalism, and economic growth. II
  - I. Political movements and social organizations responded to the problems of industrialization.
    - B. Workers established labor unions and movements promoting social and economic reforms that also developed into political parties.
      - German Social Democratic Party, British Labour Party, Russian Social Democratic Party

## Major Themes and BIG Questions

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### Themes:

- What advantages did Great Britain have that allowed it to industrialize first? (PP-1, PP-3, OS-6)
- How did rulers and governments take advantage of the industrialization of their countries to enhance their power? (PP-1, SP-5)
- How did the Industrial Revolution change the relationship between European countries and their colonies? (Int-1)
- Why did industrialization fail to take hold quickly in eastern and southern Europe as it had in the west? (PP-3, PP-4, IS-10)
- How did the Industrial Revolution affect both the middle-class factory owners and the lower class workers? (PP-6, PP-7)
- What roles did women play in the Industrial Revolution, and how were they and their families affected by it? (PP-3, PP-7, IS-6)
- How did the Industrial Revolution lead to changes in transportation and communication, and how did this affect the lives of Europeans? (INT-6, PP-4)
- How did the Industrial Revolution affect the themes artists and writers chose to depict in their works? (OS-12, PP-14)

### Essential Questions:

- What was the Agricultural Revolution (which came before the Industrial Rev.)? Name a few ways the agricultural revolution eventually caused the beginnings of industrialism.
- What is capital and what is it used for? Why did Britain have more capital than, say, France or other European nations?
- What major natural sources did Britain have available that helped it to industrialize early?
- What were inventions of the early industrial revolution that allowed for the rapid factory production of textiles? Who were the inventors of these machines?
- Why were factories so much more efficient than the previous putting out system? What changed in the process of making iron during the Industrial Revolution that made British iron so desirable?
- Why was factory work so different from the work performed by agricultural laborers?
- What kinds of regulations and disciplinary measures did factory owners and managers have to put in place to maintain the efficiency of their factories?
- What makes the Crystal Palace an important symbol of British industrial might? Describe when and where it was displayed and its overall purpose.
- Why did continental Europe lag behind Britain in industrialization? Name at least a few barriers to industrialization that continental Europe faced that were not an issue for Britain. Which places in continental Europe did the spread of industrialization reach first?
- How were the governments of the continental countries different in their approach to the economy from Britain?
- What are tariffs? Why might they be adopted by a nation? What did Friedrich List argue about the use of tariffs?
- Which part of Europe eclipsed British industrial power by the 2nd half the 19th century?
- How was the path to industrialization different in America than that of Britain? What was so revolutionary about the idea of interchangeable parts on musket production?
- Which segment of the population benefited most from industrialization in America? What do historians say about the remainder of the population?
- How did Russia operate during the age of industrialization?
- Explain why the population growth continued to explode into the 19th century. (hint, several factors at play)
- What effect did population growth have on particularly peasants in rural areas?

- Why was Ireland so oppressed in this era? Describe the life of many Irish peasants. What was this Potato Famine of 1845 all about?
- How did the functions and populations of cities change from before and after the industrial revolution?
- What were the living conditions like in urban areas? Where did wealthier, middle-class folks live? How did the two populations (laborers vs. middle-class) housing differ?
- What were the sanitary conditions like in the cities?
- Why was urban reform an issue that proved to be increasingly concerning to wealthier British business owners and politicians?
- How did the role of a "bourgeois" member of society change from the pre-industrial era to the industrial era?
- What happened to skilled craftspeople (and artisan guilds) as the industrial revolution marched onward? Why is this significant in terms of the overall economy?
- What were the working conditions like for the industrial laborers? In your response, refer to both the psychological and physical effects it had upon the laborers.
- How important was child labor to the industrial expansion of the time? Why were they a sought after group?
- What law decreased the number of children employed in factories? Who took their place? How were they treated by comparison to men performing the same jobs?
- Describe the kinds of women that worked as laborers in terms of demographics. In what ways did women's working patterns NOT change during industrial revolution?
- Socially, how did the labor reform laws change how family units operated from the beginning of industrialism to the later parts of the 19th century? Outside of work, how were children raised during this time?
- What was the Poor Law Act of 1834? What did it do? What was the common attitude towards impoverished populations at this time?
- What effects did industrialization have on the standard of living over the course of time?

[reformatted from Angelee Rusk, Erie High School, CO]

## VOCABULARY

[How many of these can you remember?]

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|--|--|
| <input type="checkbox"/> Industrial Revolution                   | <input type="checkbox"/> Luddites              |
| <input type="checkbox"/> Commercial Revolution                   | <input type="checkbox"/> Combination Acts      |
| <input type="checkbox"/> Price Revolution                        | <input type="checkbox"/> Robert Owen           |
| <input type="checkbox"/> capitalism                              | <input type="checkbox"/> Chartists             |
| <input type="checkbox"/> proto-industrialization                 | <input type="checkbox"/> Sadler Commission     |
| <input type="checkbox"/> cottage industry ("putting out" system) | <input type="checkbox"/> Factory Act of 1833   |
| <input type="checkbox"/> flying shuttle                          | <input type="checkbox"/> Mines Act of 1842     |
| <input type="checkbox"/> spinning jenny                          | <input type="checkbox"/> Ten Hours Act of 1847 |
| <input type="checkbox"/> water frame                             | <input type="checkbox"/> urbanization          |
| <input type="checkbox"/> spinning mule                           | <input type="checkbox"/> Manchester            |
| <input type="checkbox"/> Agricultural Revolution                 | <input type="checkbox"/> Irish Potato Famine   |
| <input type="checkbox"/> Bank of England                         |  |
| <input type="checkbox"/> entrepreneurs                           |  |
| <input type="checkbox"/> Act of Union, 1707                      |  |
| <input type="checkbox"/> steam engine                            |  |
| <input type="checkbox"/> James Watt                              |  |
| <input type="checkbox"/> heavy industry                          |  |
| <input type="checkbox"/> Henry Cort                              |  |
| <input type="checkbox"/> puddling furnace                        |  |
| <input type="checkbox"/> transportation revolution               |  |
| <input type="checkbox"/> George Stephenson, <i>The Rocket</i>    |  |
| <input type="checkbox"/> Crystal Palace                          |  |
| <input type="checkbox"/> Crédit Mobilier                         |  |
| <input type="checkbox"/> <i>Zollverein</i>                       |  |
| <input type="checkbox"/> bourgeoisie                             |  |
| <input type="checkbox"/> petite bourgeoisie                      |  |
| <input type="checkbox"/> proletariat                             |  |
| <input type="checkbox"/> poorhouses                              |  |
| <input type="checkbox"/> Friedrich Engels                        |  |