

I. The Agricultural Revolution

A. The Agricultural Revolution Paves the Way

1. Wealthy farmers cultivated large fields called enclosures.
2. The enclosure movement caused landowners to try new methods. It also forced small farmers to become tenant farmers or move to cities.

A. The Agricultural Revolution Paves the Way

3. Jethro Tull's seed drill allowed farmers to sow seeds in well-spaced rows at specific depths, causing an increase in the amount of crops produced.
4. Crop rotation revolutionized farming. Farmers changed the crops they planted each year.
5. Livestock breeders improved their methods too.

B. Impact of the Agricultural Revolution

1. Food supplies increased and living conditions improved, causing England's population to increase.
2. Some farmers lost their land and moved to cities.
3. Overall, the AR paved the way for industrialization.

II. The Beginnings of Industrialization

A. Industrial Revolution Begins in Britain

1. Industrialization, the process of developing machine goods, required factors of production: land, labor, and capital.

2 The IR started in Britain because it had all of the factors of production needed to produce goods.

A. Industrial Revolution Begins in Britain

3. Britain had a large population for labor, iron ore for construction, a banking system for loans and investments, water power and river transportation, and harbors for overseas trade.

B. Inventions Spur Industrialization

1. The spinning jenny and spinning mule sped up textile production. Wealthy textile merchants set up machines in factories water sources they could use as energy.

B. Inventions Spur Industrialization

2. American Eli Whitney invented the cotton gin. The US became the leader in cotton production. Even GB got their cotton from them to make textiles.

C. Improvements in Transportation

1. James Watt's Steam Engine was a cheap and efficient source of power used for machines, boats, and trains.

C. Improvements in Transportation

2. Steam Locomotives and steamboats spurred industrial growth. It was a cheap and fast way to transport things. It created jobs and made travel possible.

C. Improvements in Transportation

3. Canals and roads increased transportation and trade.

D. The Railway Age Begins

1. Steam engine technology that was used to operate machines was used to create steam-driven locomotives (aka trains).

D. The Railway Age Begins

2. The Liverpool-Manchester Railroad opened in 1830 and was immediately a success in Britain.

D. The Railway Age Begins

3. Railroads revolutionized life in Britain:

- made it easy to transport materials or finished goods
- created new jobs
- boosted other industries
- made travel easier

III.

Industrialization

A. Industrialization Changes Life

1. The IR brought a period of urbanization, city building and moving to cities. People moved from rural areas to cities, and factories were everywhere in urban areas.

A. Industrialization Changes Life

2. The rapid and unexpected growth of cities led to poor living conditions. Cities had no plans for services like sanitation, housing, police protection, etc.

A. Industrialization Changes Life

3. Working conditions were harsh.

-Average 14 hrs/day, 6 days of week

-Factories weren't well-lit or clean

-Unsafe work environments (bad air, explosions, easy to lose limbs, etc.)

B. Class Tensions Grow

1. The IR led to the growth of a middle class made up of skilled workers, professionals, businesspeople, and wealthy farmers. They enjoyed comfortable standards of living.

B. Class Tensions Grow

2. Laborers, or the working class, still faced hardships. Some workers rioted. One group, the Luddites attacked factories in England.

C. Positive Effects of the Industrial Revolution

1. The IR created jobs and made more goods available to people at cheaper prices.
2. The IR increased several countries' wealth and led to more technological progress and inventions.

C. Positive Effects of the Industrial Revolution

3. Long-term effects include the abuse of natural resources, affordable goods, an eventual improvement in labor conditions, and in general, higher standards of living.

IV. Industrialization Spreads

A. Industrial Development in the United States

1a. Britain made it illegal for engineers, mechanics, and toolmakers to leave the country.

1b. Regardless, the IR in the US began with the textile industry. Factories brought workers to the cities, and many single women were also employed as mill girls.

A. Industrial Development in the United States

2a. Industrial growth in the US was centered in the Northeast. A technological boom in the late 1800s brought inventions like the lightbulb and the telephone.

A. Industrial Development in the United States

2b. Railroads played a large role in industrialization and led to the expansions of cities like Chicago and Minneapolis.

A. Industrial Development in the United States

3a. The US saw a rise in corporations. Big business dominated their respective industry and made big profits, often at the expense of their workers.

A. Industrial Development in the United States

3b. Andrew Carnegie's Carnegie Steel Company and John D. Rockefeller's Standard Oil Company dominated business in America.

B. Continental Europe Industrializes

1a. Belgium's access to resources like coal, iron ore, and waterways made industrialization possible.

1b. Belgium adopted Britain's new technology and developed their own too with the help of British skilled workers.

B. Continental Europe Industrializes

2a. At first only pockets of industrialization appeared in Germany, but soon German railroads connected manufacturing cities.

2b. By the late 1800s, Germany was politically unified and became both an industrial and a military giant.

B. Continental Europe Industrializes

3a. Although they were delayed by the Napoleonic Wars, other European countries became industrialized throughout the 1800s. Some countries, like France, kept strong agricultural industries even as they industrialized.

B. Continental Europe Industrializes

3b. Outside of Europe, the beginning of the Meiji era in 1868 began an ambitious program to transform Japan into an industrial state. This led to a strong Japanese military.

C. The Impact of Industrialization

1a. There was a gap between industrialized and non-industrialized countries. Industrialized countries looked to less-developed countries for raw materials and places to sell products.

C. The Impact of Industrialization

1b. Britain and later other European countries and the US seized and exploited colonies for their economic resources. Imperialism was born out of industrialization.

C. The Impact of Industrialization

2. Between 1700-1900, life in Western Europe and the US changed dramatically. Poor working and living conditions eventually led to social reform.

V. Reforming the Industrial World

A. The Philosophers of Industrialization

1a. Supporters of laissez-faire economics promoted little to no gov't interference in business and trade.

1b. In *The Wealth of Nations*, Adam Smith discussed the three laws of economics: the law of self-interest, the law of competition, and the law of supply and demand

A. The Philosophers of Industrialization

2a. Adam Smith, Thomas Malthus, and David Ricardo believed in capitalism.

2b. These capitalists believed businesses should make a profit and seek wealth and that the gov't shouldn't help poor workers.

B. The Rise of Socialism

1. Philosophers like Jeremy Bentham and John Stuart Mill supported utilitarianism, which meant that the gov't should promote the greatest good for the most people.

B. The Rise of Socialism

2. Other reformers took a more active approach and attempted to create utopian societies.

B. The Rise of Socialism

3. Others supported socialism, in which the factors of production would be owned by the public and operate for the welfare of all. Socialists were against capitalism and wanted the gov't to plan the economy.

C. Marxism: Radical Socialism

1. Germans Karl Marx and Friedrich Engels *The Communist Manifesto*, presenting a new radical socialism known as Marxism and criticizing the effects of the IR.

C. Marxism: Radical Socialism

2. They wrote of the disparities and conflicts between “haves” or employers, called the bourgeoisie, who benefitted from the IR, and the “have-nots” or workers called the proletariat, who were often exploited.

C. Marxism: Radical Socialism

3a. Marx believed that the proletariat would revolt and overthrow the bourgeoisie, leading to a short “dictatorship of the proletariat.” After this, a classless society would develop and there would be pure communism in which everything was owned collectively by the people.

C. Marxism: Radical Socialism

3b. Though *The Communist Manifesto* produced few short-term results, it would later spark revolutions in Russia, China, and Cuba.

(Hint: Don't forget about this stuff!! You'll need this info later!!)

D. Labor Unions and Reform Laws

1. Skilled workers began to form unions in the 1800s to have bargaining power and to improve working conditions.
2. The union movement in GB and the US was slow, but eventually workers could fight for higher wages, shorter hours, and better conditions.

D. Labor Unions and Reform Laws

3. New laws, like GB's Factory Act of 1833, limited child labor. The Mines Act of 1842 and Ten Hours Act of 1847 provided protections for women and children.

4. In the US, the National Child Labor Committee sought ending child labor. It didn't end in the US until 1938...

E. The Reform Movement Spreads

1a. The British abolished slavery in its empire by 1833.

1b. After a long abolitionist movement and Civil War in the US, slavery ended there in 1865.

E. The Reform Movement Spreads

2a. Women generally made 1/3 of what men made in the factories.

2b. Women in both the US and GB led reform movements, focusing on issues like helping the poor, abolishing slavery, fighting for women's suffrage, etc.

E. The Reform Movement Spreads

3a. Reformers tried to correct problems of newly industrialized countries, focusing on public education and prison reform.

3b. During the 1800s, democracy grew in industrialized countries.