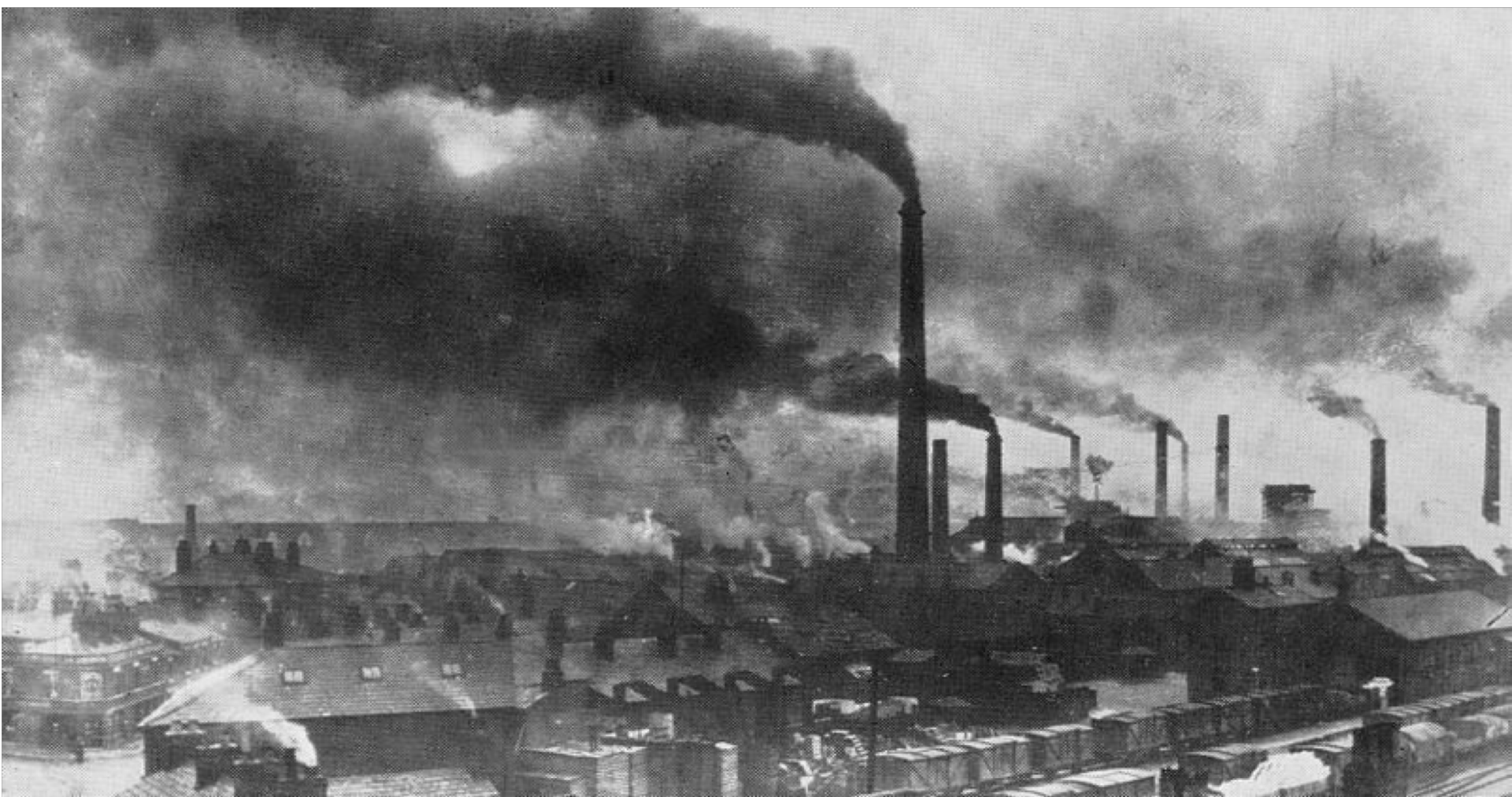


# **SSWH15 Describe the Impact of Industrialization and Urbanization**



***Element A: Analyze the process and impact of Industrialization in Great Britain, Germany, and Japan***

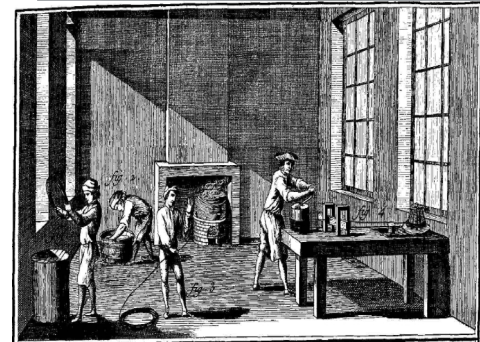
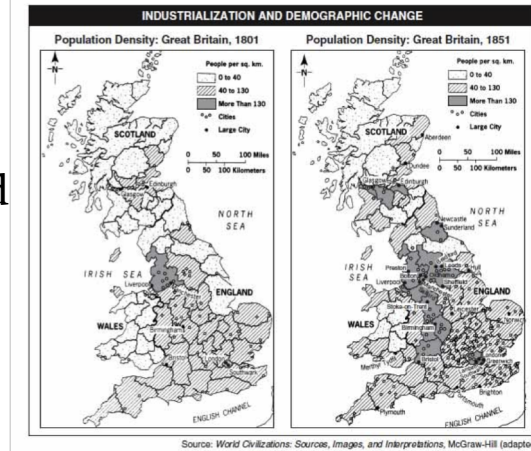
# Industrialization in England

- ❑ While many of the key elements of industrialization, including mass production and mechanization, first appeared in Song China around the 12th century it was in 18th century Britain that sustained innovations in technology that led to dramatic and permanent transformations of society.
- ❑ Several factors converged to make Britain the birthplace of the industrial revolution.
  1. First, the British Isles were rich in many of the key ingredients to early industrialization including coal, iron, waterways, and harbors.
  2. Next, Britain experienced an agricultural revolution in the 18th Century.
    - This agricultural revolution was made possible by the convergence of two events: 1) exploration and 2) enclosure legislation in the British Parliament.
      1. Exploration brought the Columbian Exchange which led to the introduction of new crops like potatoes and corn to the cool climate of Britain which increased agricultural yields.
      2. Large landowners pressured the Parliament to pass legislation that privatized common lands and allowed property owners to enclose these lands in fences and hedges.
        - This enclosure and privatization of land increased the availability of land for exploitation and gave landowners the financial security needed to begin experimenting with innovative agricultural practices like the introduction of American crops, crop rotation, selective breeding, and the mechanization of planting.



# Industrialization in England

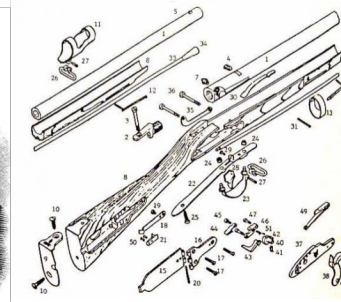
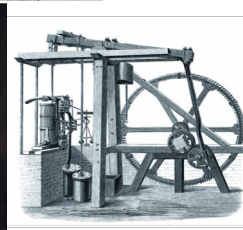
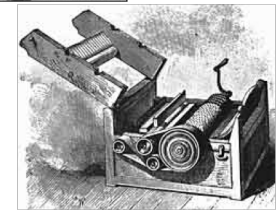
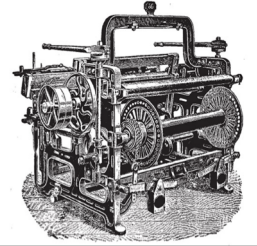
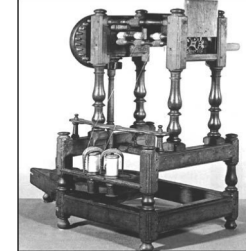
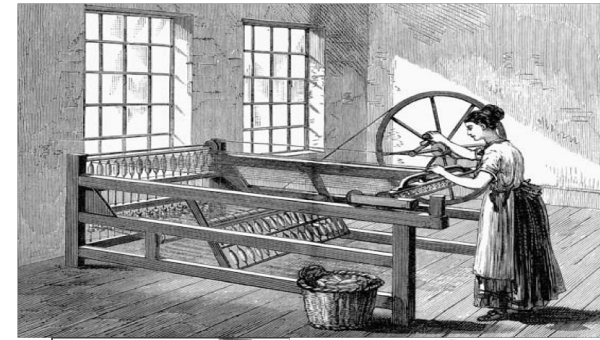
- ❑ The agricultural revolution produced two other key ingredients in industrialization: 1) capital and 2) labor.
  1. Innovation in farming increased efficiency and output, this enriched property owners, increased population and displaced workers.
  2. Traditionally, the majority of Britain's poor worked as tenant farmers on the large estates of the old nobility, but with the agricultural revolution many of these tenant farmers became unnecessary leading to a migration to urban areas where they became a reliable and affordable labor force.
- ❑ Britain's abundant natural resources, capital, and a large labor force was marshaled to feed the ever increasing demand for manufactured goods both at home and abroad.
  - At home, population growth fueled this demand and abroad British colonization of the Americas, the African slave trade and the Asian trade in luxury goods fueled the demand.
  - Traditionally, British manufacturing was done in small batches in workshops and homes but beginning in the mid-1700s production began to shift to factories.
    - In 1759 Josiah Wedgwood transformed the production of pottery by introducing division of labor.
      - Each worker was given on small simple task in the manufacture of pottery. This change increased productivity and quality and decreased costs. Wedgwood became a model for mass production in Britain.





# Industrialization in England

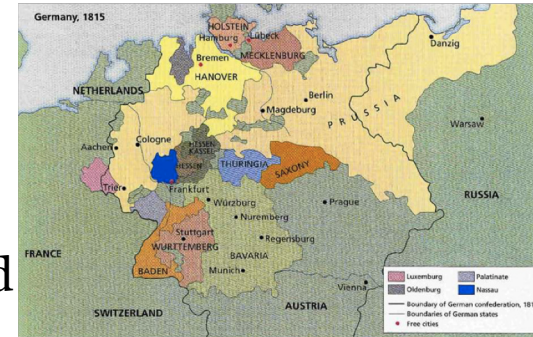
- Mechanization of production quickly followed, this time in the textile industry.
  - A rapid succession of inventions and innovations, including the spinning jenny in 1764, the water frame in 1769, the power loom in 1784, and the cotton gin in 1793 fully mechanized the production of cloth by the turn of the century.
  - Machines became more efficient, dependable and affordable with the regular use of iron, the introduction of steam power and use of interchangeable parts.
    - While iron had been in use for thousands of years, its production up until the late 1700s was extremely labor intensive.
    - Discoveries in the late 1700s allowed the iron workers to efficiently remove impurities greatly increasing output and bring down costs.
  - In 1764, James Watt developed a steam engine that with time ended dependence on waterways for power and transportation.
    - By the 1820s steam engines powered factories, trans-Atlantic ships, and railroads.
  - In 1801, Eli Whitney, an American, introduced the use of interchangeable parts to the manufacture of firearms. Like the other innovations, interchangeable parts increased productivity and quality and decreased costs. The use of interchangeable parts spread to other industries quickly and after its adoption by British firms it became known in Europe and the “American system of manufactures.”





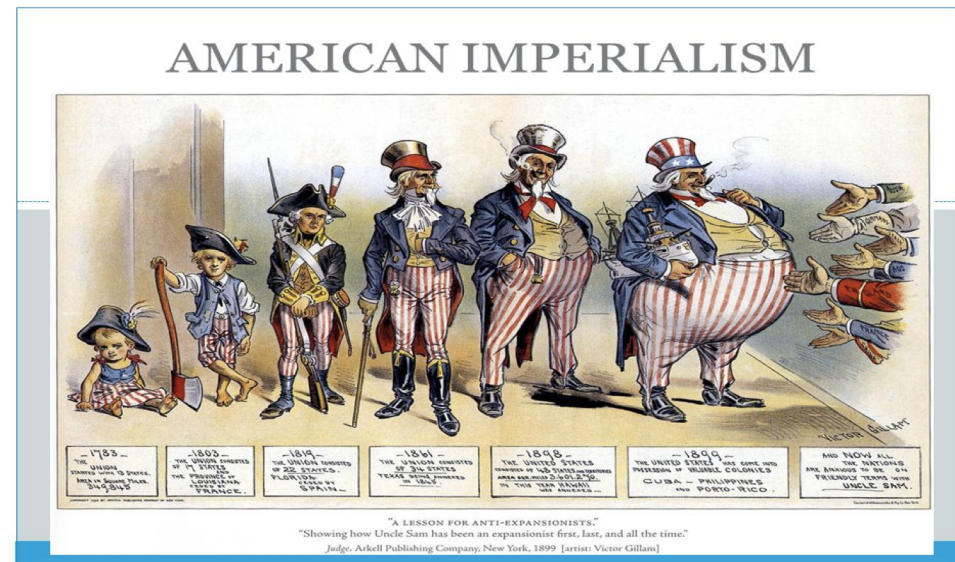
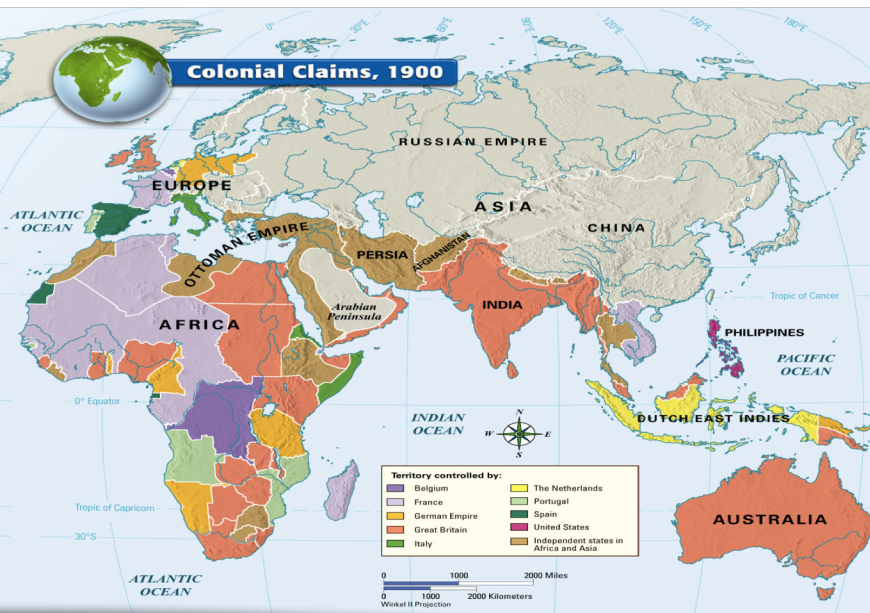
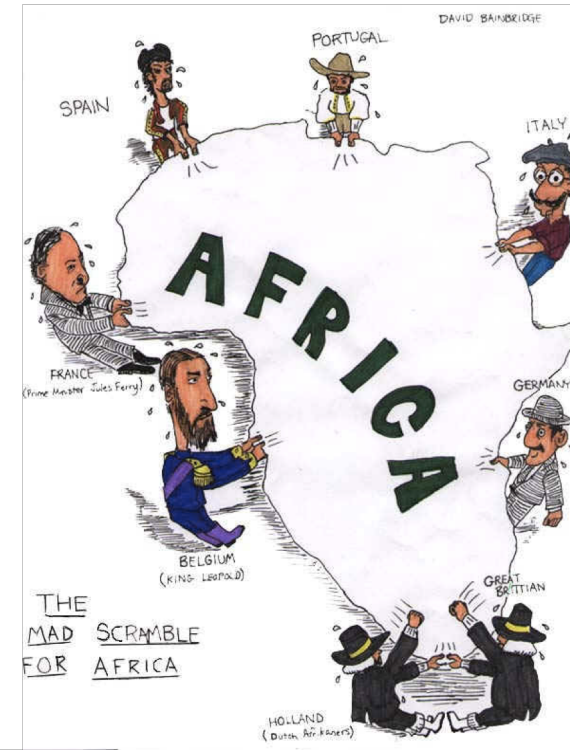
# Industrialization in Germany

- While the industrial revolution started in Britain, with time, the industrial powerhouse of Europe became Germany.
  - In the 18th century, Germany, as a nation-state did not exist. Instead, the German speaking lands were divided into a multitude of kingdoms, principalities, duchies, and a variety of other forms of political union.
  - The most powerful of these was the Kingdom of Prussia. In around 1835, Prussians with the support of their government began to study the British model for industrialization.
    - They imported British machines, hired British engineers and sent their children to study industrial management in England.
    - By the 1850s textile factories, iron works, railroads, and coal mines were, according to German economist Max Wirth “sprout[ing] from the earth like mushrooms.”
  - By the turn of the century, Germany, now unified into a single German Empire, was a major industrial and military power in the world.
    - By 1913, German industrial output surpassed Britain and was second only to the United States.



# Industrialization in Europe and the United States

- ❑ Industrialization in Europe and the United States created an endless demand for more raw materials to produce goods and more markets in which to sell those goods.
  - This led to European and American imperialism in the mid- 1800s.
    - Africa and Asia fell victim to this imperialism with almost all of Africa, South Asia, Southeast Asia and coastal China under the control of either a European nation or the United States by 1900.
    - In the midst of this scramble for colonies, Japan was faced with the very real possibility of becoming the victim of imperialism.





# Industrialization in Japan

- ❑ At the start of the 19<sup>th</sup> century, Japan was basically a feudal society loosely ruled by the Tokugawa Shogunate.
  - For the last 165 years Japanese law forbid most foreign interactions.
  - While some legal trade and a fair amount of smuggling had kept Japan loosely connected with the outside world, this official isolation meant that Japan had missed most of the political, social and technological advances of the last 150 years.
- ❑ This meant that when the United States Navy showed up in 1853 to demand trading and docking privileges in Japan, the Shogun was in no position to refuse.
  - The shogun accepted the Treaty of Kanagawa which opened Japan to US business interests.
  - In 1864, British and French ships shelled the southwestern coast of Japan in retribution for Japan's treatment of their nationals.
- ❑ This shelling, the provisions of the Treaty of Kanagawa and knowledge of the failures of China to repel European and American military force inspired a rebellion against the shogun who was seen by many as weak and incompetent.
  - A brief civil war followed and in 1868 the shogun was removed from power and a new government was formed called the Meiji Restoration. While the leaders of this government claimed to be restoring power to the emperor, in reality he remained a figurehead and the country was ruled by a small group of oligarchs.





# Industrialization in Japan

- ❑ The Meiji government was determined to prevent Japan from falling victim to imperialism.
  - To this end, they instituted a wide range of reforms designed to make Japan into a modern country in all respects.
    - Hundreds of Japanese students were sent to study in the United States, Britain and Germany. American, British and German experts of all stripes were hired to come to Japan to train Japanese bureaucrats, military officers, educators, and students.
    - A network of public education was established that included vocational, technical, and agricultural schools as well as research universities.
    - Japan created a modern conscript army fashioned after Prussia, a modern navy fashioned after Britain, and a modern imperial government bureaucracy fashioned after Germany.
- ❑ The Japanese government established state owned factories that produced textiles and consumer goods for sale abroad.
  - Once the profitability of these factories was secured, the state sold the factories to groups of private investors called zaibatsu.
  - Profits from the sale of these factories funded the reforms allowing Japan to avoid dangerous foreign debt.



# Japanese Imperialism

- ❑ The efforts of the Meiji government were incredibly successful.
- ❑ Rather than become the victim of imperialism, Japan became an imperial power in its own right by 1900.
  - In 1905, Japan shocked the world by defeating Russia in the Russo-Japanese War.





# Comparisons of Industrialized World Powers

- ❑ Many of the consequences of industrialization were common to all three of these countries.
- ❑ Industrialization made each of these countries major military powers who used this power to establish overseas empires.
  - For the British this empire include large parts of Africa, all of South Asia, and ports in China.
  - The Germans held a colony in New Guinea and several colonies in Africa.
  - Japan controlled Korea, Taiwan and Manchuria.
- ❑ At home industrialization undermined the old social order left over from each countries' feudal past.
  - The old hereditary nobilities' influence declined as wealth shifted to a new urban middle class who managed and owned businesses.
  - A new urban working class emerged that was ruthlessly exploited for their labor until they were able to organize and demand reforms.
  - For some, industrialization brought a dramatic increase in their standard of living.
    - Consumer products of all kinds became affordable and the quality and durability of these products increased dramatically.
  - For others, factory work proved more dangerous and exhausting than farm labor leading to a decline in the standard of living.
- ❑ Globally, communication increased as steam power shortened trips across oceans and continents and the telegraph made instant global communication possible.

