Reading Passage for Background Knowledge

Industrial Revolution People, Inventions, and Events
Details of the American Industrial Revolution

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Cotton and Cloth

In 1794, Eli Whitney invented the cotton gin which made the separation of cotton seeds from fiber much faster. The South increased its cotton supply sending raw cotton north to be used in the manufacture of cloth. Francis C. Lowell increased the efficiency in the manufacture of cloth by bringing spinning and weaving processes together into one factory. This led to the development of the textile industry throughout New England.

In 1846, Elias Howe created the sewing machine which revolutionized the manufacture of clothing. All of a sudden, clothing began to be made in factories as opposed to at home.

Interchangeable Parts

Eli Whitney came up with the idea to use interchangeable parts in 1798 to make muskets. If standard parts were made by machine, then they could be assembled at the end much more quickly than before. This became an important part of American industry and the Second Industrial Revolution.

From Agriculture to Cities

As industries and factories arose, people moved from farms to cities. This led to other issues including overcrowding and disease. However, advances were made in agriculture too including better machines and cultivators. For example, Cyrus McCormick created the reaper which allowed quicker and cheaper harvesting of grain. John Deere created the first steel plow in 1837 helping speed up farming across the Midwest.

Communication and the Industrial Revolution

With the increased size of the United States, better communication networks became ultra important. In 1844, Samuel F. B. Morse created the telegraph and by 1860, this network ranged throughout the eastern coast to the Mississippi.

Transportation

The Cumberland Road, the first national road, was begun in 1811. This eventually became part of the Interstate 40. Further, river transportation was made efficient through the creation of the first steamboat, the *Clermont*, by Robert Fulton. This was made possible by James Watt's invention of the first reliable steam engine.

The creation of the Erie Canal created a route from the Atlantic Ocean to the Great Lakes thereby helping stimulate the economy of New York and making New York City a great trading center.

Railroads were of supreme importance to the increase in trade throughout the United States. In fact, by the start of the Civil War, railroads linked the most important Mid West cities with the Atlantic coast. Railroads further opened the west and connected raw materials to factories and markets. A transcontinental railroad was completed in 1869 at Promontory, Utah.

With the great advances of the Industrial Revolution, inventors continued to work throughout the rest of the 19th and early 20th century on ways to make life easier while increasing productivity. The foundations set throughout the mid-1800's set the stage for inventions such as the light bulb (Thomas Edison), telephone (Alexander Bell), and the automobile (Karl Benz). Further, Ford's creation of the assembly line which made manufacturing more efficient just helped form America into a modern industrialized nation. The impact of these and other inventions of the time cannot be underestimated.

Background of the Industrial Revolution

The Industrial Revolution (1820-1870) was of great importance to the economic development of the United States. The first Industrial Revolution occurred in Great Britain and Europe during the late eighteenth century. It then centered on the United States and Germany.

The Industrial Revolution itself refers to a change from hand and home production to machine and factory. The first industrial revolution was important for the inventions of spinning and weaving machines operated by water power which was eventually replaced by steam. This helped increase America's growth. However, the industrial revolution truly changed American society and economy into a modern urban-industrial state.

Growing Industrialization

The real impetus for America entering the Industrial Revolution was the passage of the Embargo Act of 1807 and the War of 1812. Americans were upset over an incident with the *Chesapeake* whereby the British opened fire when they were not allowed to search the ship. They also seized four men and hung one for desertion. This resulted in much public outrage and the passage of the Embargo Act which stopped the export of American goods and effectively ended the import of goods from other nations. Eventually, America went to war with Great Britain in 1812. The war made it apparent that America needed a better transportation system and more economic independence. Therefore, manufacturing began to expand.

Industrialization in America involved three important developments. First, transportation was expanded. Second, electricity was effectively harnessed. Third, improvements were made to industrial processes such as improving the refining process and accelerating production. The government helped protect American manufacturers by passing a protective tariff.

~~Include the following responses in your scientific journal:~~

- ~~What would be the benefits of your invention during the 1800s?~~
- ~~What were some of the benefits that were actually created during that period? Provide textual evidence to support your answer.~~
- ~~What effect did the railroads have on the Industrial Revolution as well as on the landscape? Include both negative and positive effects.~~