




Teacher Guide for “From the Farm to the Factory” PowerPoint Presentation

Slide	Script
<p data-bbox="370 485 402 510">#1</p> 	<p data-bbox="613 485 1321 510">Start here if using as lesson 1 in the America Gears Up unit.</p> <p data-bbox="613 541 1300 567">Skip to slide 6 if using this lesson as a stand-alone lesson.</p> <p data-bbox="613 604 1065 630">(Click to continue to the next slide.)</p>
<p data-bbox="370 821 402 846">#2</p> <p data-bbox="354 877 418 903">Why?</p> <ul data-bbox="228 940 545 1094" style="list-style-type: none"> • SS.A.5.4.1: The student knows the causes of the Industrial Revolution and its economic, political, and cultural effects on American Society. 	<p data-bbox="613 821 1446 875">Discuss the basic benchmark for this unit. All of the lessons in this unit focus on this benchmark.</p> <p data-bbox="613 913 1065 938">(Click to continue to the next slide.)</p>
<p data-bbox="370 1157 402 1182">#3</p> <p data-bbox="245 1203 532 1257">The Big “Why?” for the Unit</p> <ul data-bbox="228 1278 545 1444" style="list-style-type: none"> • Can societies have winners and losers at the same time? • Can societal groups win and lose at the same time? • How are the winners and losers reconciled? 	<p data-bbox="613 1157 1438 1461">There are larger concepts, along with the state mandated benchmark, that will be addressed in the unit. The overriding questions for the whole unit are found on this slide. The idea of winning and losing should be broached here. Introduce each question. Lead a discussion on each question, asking for examples from the students’ lives and experiences that illustrate the concepts found in the questions. It is important to have a thorough discussion here. This discussion allows the students to access prior knowledge concerning these questions. This will provide students with a foundation for understanding these questions in the context of the Industrial Revolution.</p> <p data-bbox="613 1499 1065 1524">(Click to continue to the next slide.)</p>

#4



This slide provides a short overview of the whole unit.

(Click to show the lesson 1 box.)

Lesson 1 is a review of the early part of the Industrial Revolution in America. Students study the period between the mid-1700s and the mid-1800s. They are asked to look at this period through the eyes of either an early factory worker or owner and express what they saw by writing a series of letters, diary or journal entries, or conducting a fictitious interview reflecting on the period.

(Click to show the lesson 2 box.)

Lesson 2 looks at how certain individuals and industries known as "Big Business" grew to dominate business and industry in this country during the period from 1850-1910. The lesson focuses on corporate organization and tactics in the railroad, steel, and oil industries and how government attempted to control these "Big Businesses." Student groups work together to present information to the class on these "Big Businesses."

(Click to show the lesson 3 box.)

Lesson 3 looks at the working conditions and general labor situation during the period from 1850-1910. Students are given several methods for presenting the pro (for) and con (against) views of labor for this period.

(Click to show the lesson 4 box.)

The last lesson focuses on the important inventions from this period that helped change the economic, social, and political circumstances in the United States. Students either complete a Web Lesson on the inventions or are presented information on the inventions. Students write persuasive essays on what they think is the most important invention during this period.

(Click to show the unit project box.)

The unit concludes with a project. Students are employed by a think tank to answer the essential questions discussed in the previous slide (Slide 3). They present their findings using a method that is best suited to their personalities.

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#5



Explain that through the course of this unit students will be asked to practice their listening, reading, and writing skills.

Ask students to summarize what has been discussed up to this point. See if any of the students can refer to their notes and tell what the essential or "Big" questions for the unit are.

(Click to continue to the next slide.)

<p>#6</p> 	<p>The lesson 1 presentation begins here.</p> <p>(Click to continue to the next slide.)</p>
<p>#7</p> 	<p>Discuss the two guiding questions for lesson 1. Solicit student responses. They probably don't have enough information to have an educated opinion at this time, but they will be able to contrast their answers in their unit journal at the end of the lesson. Their opinion, if they have one at this point, should evolve based on what they learn in this lesson.</p> <p>(Click to continue to the next slide.)</p>
<p>#8</p> 	<p>(Click to see the first question.)</p> <p>(Click to see the second question.)</p> <p>Try to stimulate the students' prior knowledge by soliciting information from the students about this period of history. Write the information on the board or chart paper. You should have some idea of the students' general knowledge of the Industrial Revolution in the United States from the diagnostic test. Try to discuss the worldwide Industrial Revolution here to help fill in background information that is needed to understand the causes and effects of the Industrial Revolution in the United States.</p> <p>(Click to continue to the next slide.)</p>
<p>#9</p> 	<p>Begin the narrative here.</p> <p>(Click to continue to the next slide.)</p>

<p style="text-align: center;">#10</p> <p style="text-align: center;">Industrialization Came Late to America</p> <ul style="list-style-type: none"> • People came to America for the plentiful land. <ul style="list-style-type: none"> -They didn't want to be confined to a factory. -There was a shortage of labor to run machines. 	<p>Before about 1800 most people came to America to get land. Land was scarce in an overpopulated Europe and abundant in America. America was late to enter the Industrial Revolution because of this situation. People wanted to farm rather than be confined to a factory, so labor to work in factories was scarce. Not until the 1840s when a large number of immigrants came to the United States did this problem get solved. While Great Britain and eventually the other countries of Europe were changing from agricultural to industrial societies, Americans continued to farm.</p>
<p style="text-align: center;">#11</p> <p style="text-align: center;">Industrialization Came Late to America</p> <ul style="list-style-type: none"> • There was little money for investment. • The market for manufactured goods was small. • Great Britain guarded her manufacturing secrets. 	<p>There were several reasons other than scarce labor that caused America to be late entering the Industrial Revolution. Money for capital investment (investment in buildings and machinery) was not plentiful. Even though the North American continent had abundant resources, like iron ore and coal that were necessary for an industrial revolution, they were not required for an agricultural economy. These resources lay undiscovered at this time. For a country that would eventually be the greatest producer of coal, this resource was imported from Europe during the colonial period. Consumers were also scarce. The rural economy did not require enough manufactured items to make factory-scale manufacturing profitable. Great Britain had a monopoly in the colonies on manufactured goods making American manufacturing uncompetitive. Finally, laws were passed in Great Britain that protected their manufacturing secrets, especially the manufacture of textiles. No machines could be exported out of Great Britain and no machinists could emigrate. This stifled early manufacturing in the American colonies and in the early republic. These problems would eventually be overcome. The catalysis came in the form of an individual.</p> <p>Select specific students to use their notes to enumerate the reasons that the American colonies and the early republic were slow to enter the Industrial Revolution.</p> <p>(Click to continue to the next slide.)</p>
<p style="text-align: center;">#12</p> <p style="text-align: center;">Causes for the Industrial Revolution in the U.S.</p> <ul style="list-style-type: none"> • Eli Whitney started the process. <ul style="list-style-type: none"> -He was considered the father of manufacturing. -He invented a machine that started the Industrial Revolution in America. -Next, he invented one that continued the revolution. 	<p>Ask: Does anyone recognize the person (Eli Whitney) on the slide. Discuss any answers that the students might come up with.</p> <p>(Click to see the bulleted information on this slide.)</p> <p>The beginning of the Industrial Revolution in the United States can be traced back to an individual, Eli Whitney. He is considered the “father of manufacturing.” He is actually responsible for two revolutionary inventions. One that helped start the Industrial Revolution in America, and later one that contributed to the continuation of the revolution. First, the one that began the industrialization of America.</p> <p>(Click to continue to the next slide.)</p>

#13

Causes for the Industrial Revolution in the U.S.

- Early industrial espionage brought textile machines to the U.S.
- Cotton gin
 - Made cotton production profitable
 - Provided raw material for textile factories



Samuel Slater, an English mechanic, memorized the workings of a British textile machine. He then disguised himself and slipped in the United States in 1790, where he teamed up with Moses Brown, a Quaker capitalist in Rhode Island. He then constructed a textile machine from memory, thus breaking the monopoly in textile manufacturing enjoyed by Great Britain. Build the machine and they will come? This was the situation. The machines that they built were in need of fiber to fashion into thread to make cloth. In stepped Eli Whitney.

(Click for the first bulleted text.)

In 1793, Eli Whitney, while studying to be a lawyer, visited Georgia to tutor students in the law. He saw the poverty around him and was told that if only someone could figure out how to separate the seeds from the cotton fiber that this poverty would be broken. Once hearing this, he set out to do just this. Within ten days he had built a machine that separated seeds from cotton fiber.

(Click for an image of a cotton gin.)

Ask students if they recognize the machine?

(Click for the second bulleted text.)

This machine, the cotton gin (short for engine), was to be the catalysis that started the Industrial Revolution in the United States. The improved machine provided a mechanical method for removing the seeds from cotton fiber, which was fifty times more effective than picking the seeds out by hand. This doesn't seem like much, but it was to change the history of the United States and the world. Now there was raw material for Samuel Slater's machines in New England. Using cotton for textiles now became highly profitable. Both the northern and southern regions of the United States prospered. In the south, plantation owners planted more and more cotton. They moved westward as land became scarce. This solidified the need for slave labor in the south. This cotton fiber was exported at first to England and then to the New England region of the United States as mills sprang up there.

(Click to continue to the next slide.)

#14

Types of Industry-Location

- The first factories were textile mills in New England for several reasons.
 - Poor soil encouraged manufacturing not farming.
 - The dense population provided workers.







The image is of the Slater Mill, built in 1773, the first truly mechanized textile mill in the United States.

(Click to see bulleted text.)

In the New England region of the United States, the cotton fiber was being made into fabric in textile mills that had been built based on plans smuggled in from Great Britain by Samuel Slater. These textile mills became the basis for the Industrial Revolution in the United States. New England became first center of manufacturing in the United States for several reasons. Poor, rocky soil discouraged farming and encouraged manufacturing. This area also had a dense population that could provide workers for the fledgling factories.

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<p>#15</p> <p>Types of Industry- Location</p> <ul style="list-style-type: none"> • Seaports were available to import raw materials. • Rivers provided a source of power. • A shortage of goods from England inspired new mills. 	<p>Imports of raw cotton fiber and exports of cotton textiles were facilitated by numerous seaports in the region. There were also numerous rivers to provide power and facilitate transportation of raw and finished materials. Finally, around 1800, due to political circumstances, such as a trade embargo and the War of 1812, imports of common goods stopped. The United States had to manufacture goods that had come from abroad before, in fact, they were encouraged to do so by the government and paid bounties to do so. "Buy American" and "Wear American" were slogans that supported the idea of domestic manufacturing. During this period, manufacturing expanded beyond textiles into many other areas.</p> <p>Select a couple of students and have them to refer to their notes. Have them list the reasons that the Industrial Revolution started in New England.</p> <p>(Click to continue to the next slide.)</p>
<p>#16</p> <p>New Industries Flourished</p> <ul style="list-style-type: none"> • Firearms manufacture was an important industry. • Remember Eli Whitney. <ul style="list-style-type: none"> -He invented interchangeable parts for guns. -This paved the way for mass production. -This gave the North superiority in weaponry for the military. 	<p>All kinds of industries flourished in the early 1800's. Machines were knitting stockings and stitching shirts and dresses, cutting and stitching leather for shoes, and producing nails by the millions. One of the most prominent industries was the manufacture of firearms. Here Eli Whitney stepped into the picture again. He had not been very successful with the cotton gin. There were so many imitations of his original machine that he wasn't able to make a profit so he moved north to New Haven, Conn. Here he became involved in the manufacture of firearms or muskets, like the one above. When he got there, each part of the musket was handmade and therefore unique. In other words, a part from one musket could not be used on another musket. His contribution was to have machines make duplicate parts that were interchangeable. Each musket was assembled from the interchangeable parts. If something broke, then a new, identical part could be used to replace the faulty part. This idea revolutionized the manufacture of many items composed of multiple parts and became the basis for mass production and the assembly line process. Plus, the ability to mass-produce essential military goods made the military in the North superior.</p> <p>(Click to continue to the next slide.)</p>
<p>#17</p> <p>The Ball's Rolling</p> <ul style="list-style-type: none"> • One invention led to another. <ul style="list-style-type: none"> -360 patents were issued between 1790-1800. -28,000 patents were issued between 1850-1860. 	<p>New machines led to newer machines and new industries were born out of previous industries. Industries grew rapidly from 1800 to 1840. To protect their inventions, inventors would register their inventions with the U.S. government. They would receive a patent from the U.S. Patent Office in Washington, D.C. This patent would protect their invention from duplication for a period of time. This guaranteed that the inventor could profit from the invention without competition.</p> <p>Ask why this was important? Is it still important today?</p> <p>To illustrate the rapid increase in new inventions and machinery for industry in the period from 1790-1800, only 360 patents were issued. In the period between 1850-1860, 28,000 patents were issued. Industry was rapidly increasing requiring a change in the laws concerning business.</p> <p>(Click to continue to the next slide.)</p>

<p>#18</p> 	<p>The legal status for business changed during this period. In order to get enough money (capital) to finance such large endeavors as factories, a new way of organizing business was created. Companies began to sell part of the ownership of the business to individuals to raise money to expand. These pieces of the business were called “shares” of the business. Each share was like buying a small part of the company. The profits of the company were shared with the shareholders based on how many shares were held by an individual. Shareholders were only responsible or liable for the share of the business that they owned. This was known as the “principle of limited liability.” Businesses had to meet certain requirements by the government to “incorporate” so that they could sell shares to individual investors. This type of business ownership is known as a corporation.</p> <p>(Click to continue to the next slide.)</p>
<p>#19</p> 	<p>Prior to the Industrial Revolution, businesses could only incorporate by the legislature issuing a charter that was like passing a law. As the Industrial Revolution took hold, laws of “free incorporation” passed allowing businesses to incorporate without a legislative charter. This made it easier for businesses to get the money needed to build and expand their factories. Getting laws like this passed was relatively easy during this time and these laws contributed to the expansion of industry in the United States.</p> <p>Ask a student to summarize how a corporation functions and why this was important during this period of the Industrial Revolution.</p> <p>(Click to continue to the next slide.)</p>
<p>#20</p> 	<p>Laws favoring business were easily passed. Only male landowners could vote which excluded all women and most workers. Therefore, representatives were elected that were favorable to the interests of the landowners, which included the factory owners. Government, at this time, was basically run by the American upper class. The principal governing business during this period was known as “laissez-faire” or no interference from the government. Laws were passed to help businesses but few were passed in the early part of the Industrial Revolution to help workers, which posed a problem for the early industries. This problem was how to get workers to work in poor conditions for long hours so that they could gain the most profits.</p> <p>Ask: Why couldn’t workers get help from the government?</p> <p>(Click to continue to the next slide.)</p>
<p>#21</p> 	<p>The need for labor to work in the factories was a real problem prior to 1840. Most of the people still lived on farms and it was difficult to get them to leave and work in factories. Women and children were often the source of labor in the factories of the time. No matter who labored in the factories, they were faced with poor working conditions that did nothing to recruit new workers to the factories.</p> <p>(Click to continue to the next slide.)</p>

<p>#22</p> <p>Working Conditions</p> <ul style="list-style-type: none"> • Working conditions were poor in the factories. • They were poorly ventilated, lighted, and heated. • Hours were long. • Wages were low. 	<p>Working conditions in the factories were not regulated during this period and conditions were poor. Most workers had to toil in factories that were inadequately ventilated, poorly lighted, and barely heated. The workday often was twelve hours or more. Most factory workers worked six day a week. Not only did the workers have to work long hours, they had to work for extremely poor pay. Even though working conditions and other factors made labor scarce, factories were able to find workers, especially from the ranks of the women and children.</p> <p>(Click to continue to the next slide.)</p>
<p>#23</p> <p>Child Labor</p> <ul style="list-style-type: none"> • Scarce labor made factories turn to using children. • Half of the factory laborers were children under ten years old in 1820. • Conditions caused children to be mentally, emotionally, and physically stunted. 	<p>It is difficult to comprehend that in order for factories to find enough labor, they hired children. Half of the factory laborers were children under ten years old in 1820. The long hours and poor living and working conditions caused children to be mentally, emotionally, and physically stunted. The factory jobs not occupied by children were often filled with women.</p> <p>(Click to continue to the next slide.)</p>
<p>#24</p> <p>Working Women</p> <ul style="list-style-type: none"> • Women in the work force were uncommon. • Mostly single women worked. • Only about 20% of women worked in 1830. 	<p>Even though many factory jobs were filled with women it was still unusual for women to work outside the home. Most of the women that did work were single. Once they were married, they stayed at home to raise a family. For several reasons, only about 20% of women worked in 1830.</p> <p>(Click to continue to the next slide.)</p>
<p>#25</p> <p>Working Women</p> <ul style="list-style-type: none"> • Opportunities to be self-supporting were scarce. • Being a nurse, domestic servant, or teacher were the only opportunities available outside the factory. 	<p>Opportunities for women to be self-supporting were scarce in this early period in American history. Working as nurses, domestic servants (maids), and teachers were about the only jobs available for women outside the factory.</p> <p>(Click to continue to the next slide.)</p>

<p>#26</p> <p>Women in the Factories</p> <ul style="list-style-type: none"> • Most factory work was in the textile industry. <ul style="list-style-type: none"> -Most women worked six days a week. -They worked from twelve to thirteen hours a day (from dawn to dark). -Most female factory workers came from the farm. 	<p>Most women that worked in factories worked in the textile industries. The workweek in these factories was usually six days long. The workday was from dawn to dark or about twelve to thirteen hours a day. The women workers for these jobs usually came from the farms. Females on the farm were not as valuable workers as males, making them more available to work elsewhere. An example of women working in this type of situation is from factories in Lowell, Massachusetts during this period.</p> <p>(Click to continue to the next slide.)</p>
<p>#27</p> <p>Lowell, Mass. as an Example</p> <ul style="list-style-type: none"> • Women workers came from the farm. • They were supervised by company matrons. • They lived in company boarding houses. • These women provided a disciplined and docile work force. 	<p>The image is of a textile mill in Lowell, Mass.</p> <p>(Click for the bulleted text.)</p> <p>The factory at Lowell, Mass. was considered a showplace. Most of the workers were women that had been recruited from the nearby farms. They lived in company boarding houses and were supervised by company matrons. They worked six days a week from dawn to dusk and on Sunday attended church. Women, working in this capacity, provided a disciplined and docile work force. Not everyone worked and lived the monotonous life of a factory worker during this period.</p> <p>(Click to continue to the next slide.)</p>
<p>#28</p> <p>A Contrast, How the Rest Lived</p> <ul style="list-style-type: none"> • Factory owners became part of the upper class. • They joined the landowners and merchants. <ul style="list-style-type: none"> -They reaped the benefits of labor. -Fortunes were amassed. -The profits were rarely passed on to the workers. 	<p>Factory owners grew wealthy as their workers toiled long hours for poor pay. Factory owners entered the upper classes of the American class system that included wealthy landowners and merchants. They lived a life of luxury far beyond that of the average worker during this period. The wealth they accumulated was rarely passed on to their workers. The gap between the rich and poor grew during this period. The middle class also expanded during this period.</p> <p>(Click to continue to the next slide.)</p>
<p>#29</p> <p>A Contrast, How the Rest Lived</p> <ul style="list-style-type: none"> • The middle class expanded. • It now included factory managers and supervisors. 	<p>The middle class expanded as the Industrial Revolution took hold in America in the early 1800s. This class traditionally consisted of professionals, such as lawyers, doctors, merchants, and public servants. During this period the factory managers and supervisors were included in the middle class. Life in the middle class was considerable better than life in the lower, working classes. Most of the middle class owned property, lived in houses away from the "commoners," and enjoyed the affluence of the times.</p> <p>(Click to continue to the next slide.)</p>

<p style="text-align: center;">#30</p> <div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center; color: red; font-weight: bold;">Improving Life?</p> <ul style="list-style-type: none"> • Laws were passed to improve working conditions. <ul style="list-style-type: none"> -The vote was extended to working men. -Laws finally passed that limited the work day to ten hours. </div>	<p>So, if the gap between the rich and the poor was widening, then why didn't the workers do something about it? Interestingly, the workers' plight improved enough over time to keep them from actually revolting over this widening gap. Workers did try to organize and held strikes for higher wages and shorter days. At first, employers just hired new workers to replace the strikers so most strikes failed. Also laws were passed outlawing labor organizations. But then the political climate began to change during the 1820s and 1830s as a result of Jacksonian democracy that revolved around a more liberal social attitude.</p> <p>The upper class fought these changes. They felt better conditions, especially shorter hours, would reduce production, increase costs, reduce profits, and demoralize the workers. With more leisure time, the workers would get into mischief. But, even with the upper class opposition, the vote was extended to workingmen during this period giving them more political power. President Van Buren established the ten-hour workday for federal employees in 1940, and soon after many states enacted similar laws.</p> <p>(Click to continue to the next slide.)</p>
<p style="text-align: center;">#31</p> <div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center; color: red; font-weight: bold;">Improving Life?</p> <ul style="list-style-type: none"> • Child labor laws were being considered. • Free public education was beginning to be offered. </div>	<p>As the first part of the Industrial Revolution in the United States was ending other laws were also being pondered. Laws restricting child labor were being considered. A new influx of immigrants from Europe in the 1840s and after relieved the labor shortage making child labor less necessary for industry. Free public education was also being proposed during this time as well.</p> <p>As life got better due to the political process, the standard of living for workers also improved.</p> <p>(Click to continue to the next slide.)</p>
<p style="text-align: center;">#32</p> <div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center; color: red; font-weight: bold;">Improving Life?</p> <ul style="list-style-type: none"> • The standard of living improved. <ul style="list-style-type: none"> -Workers got better wages. -Availability of cheaper products provided more and varied items. • The gap between the rich and poor was somewhat offset by these factors. </div>	<p>The standard of living improved for several reasons. Workers wages actually increased at about one percent per year during the early 1800s, giving them more purchasing power. Along with the increased purchasing power came the availability of more and cheaper products due to mass production and the factory system. By reducing labor costs, machines not only reduced manufacturing costs but also lowered prices manufacturers charged consumers. In short, machine production created a growing abundance of products at cheaper prices. These factors, along with laws being passed in their favor, made life somewhat more comfortable for workers. This generally offset, but did not eliminate the conflict arising between the poor workers and the rich companies.</p> <p>Ask: Why didn't workers unite and take over the factories if conditions were so bad?</p> <p>(Click to continue to the next slide.)</p>

#33

**Brother Against Brother,
the Civil War**

- The first part of the Industrial Revolution ends at this point.
- Manufacturing increased in the North.
- The end of this conflict brought the second part of the Industrial Revolution.

The first part of the Industrial Revolution ends with the Civil War. This is not to imply that the Industrial Revolution stopped with the war, but that the historical circumstances changed due to such a terrible event in American history. Manufacturing actually increased during the war. The need for war goods, such as guns, uniforms, and transportation systems, increase during wartime. The North had moved to an industrial economy prior to the war, so therefore was better equipped to manufacture the goods of war. The South had remained essentially agricultural and lacked the manufactured necessities of war. These circumstances contributed to the outcome of the conflict. Historical circumstances after the war would lead the United States into a new phase of the Industrial Revolution that would last into the twentieth century.