

Brandon Valley School District
District Learning Plan
April 27-May 1, 2020

Grade 5 Social Studies



Brandon Valley School District Distance Learning Plan

LESSON/UNIT: Industrial Revolution

SUBJECT/GRADE: 5th grade Social Studies

DATES: April 27- May 1

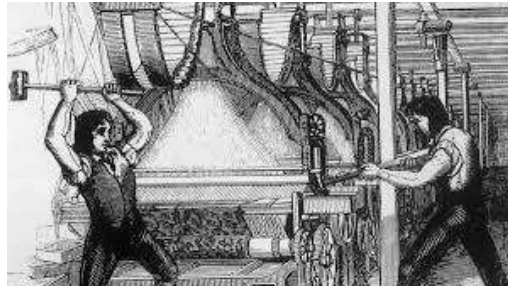
What do students need to do? <u>Link to BV instructional video for week of April 27 - May 1, 2020</u>	Monday, April 27 -- Read the Industrial Revolution weekly instructions handout to get an introduction as to what we are doing this week. Read the Newsela article called "The First American Factories". Tuesday, April 28 -- Read through the Industrial Revolution slides. Read all the information carefully on the slides as you will be using that information over the next couple days! Wednesday, April 29 -- Fill out the Industrial Revolution chart. Thursday, April 30 -- Fill out the chart called the Industrial Revolution positives and negatives. Friday, May 1 -- Read the Newsela article called "The Industrial Revolution and Technology".
What do students need to bring back to school?	1. Industrial Revolution chart 2. Industrial Revolution positives and negatives chart
What standards do the lessons cover?	5.H.2.3 -- Identify the key changes leading to and resulting from growth and invention in the U.S. between the Revolution and 1865. 5.H.2.4 -- Evaluate the influence, impact, and interactions of various cultures, philosophies, and religions on the development of the U.S.
What materials do students need? What extra resources can students use?	Need: • Industrial Revolution slides • Newsela article, "The First American Factories" • Newsela article, "The Industrial Revolution and Technology" • Industrial Revolution chart • Industrial Revolution positives and negatives • pencil
What can students do if they finish early?	• Watch CNN10 -- daily student news program -- <u>https://www.cnn.com/cnn10</u>
Who can we contact if we have questions?	Brandon Valley Intermediate School Principal- Mr. Skibsted- <u>Nick.Skibsted@k12.sd.us</u> Assistant Principal- Mr. Pearson- <u>Rick.Pearson@k12.sd.us</u> Social Studies Teachers: Ms. Klumper- <u>Abby.Klumper@k12.sd.us</u> (silver team) Ms. Lubinus- <u>Michelle.Lubinus@k12.sd.us</u> (red team) Ms. Farmen- <u>Lindsey.Farmen@k12.sd.us</u> (white team) Ms. Strand- <u>Jennifer.Strand@k12.sd.us</u> (blue team)

Notes:

Instructional materials are posted below (if applicable)

Brandon Valley School District

Welcome to the *Industrial Revolution!*



Unplug the TV and refrigerator. Get rid of all devices that run on electricity. Dump all packaged food and start growing your own. Toss out the store-bought soaps and shampoos. Chop some woods for the fireplace for heat and cooking. Forget about school during the day. From now on you're working from dawn to dusk! Do all that and you'll see how most people lived before the Industrial Revolution!

The Industrial Revolution is the time marking the introduction of machinery and the growth of factories!

Schedule for the week of April 27 - May 1:

Monday, April 27 -- Read the Newsela article, "[The First American Factories](#)".

Tuesday, April 28 -- Read through all the [Industrial Revolution slides](#). Read the information carefully as you will be using this information over the next couple days to complete some activities.

Wednesday, April 29 -- Fill out graphic organizer (inventor, year and impact) - it is called the [Industrial Revolution chart](#). Use the Industrial Revolution slides that you read through on Tuesday to help you fill out the chart.

Thursday, April 30 -- Using the Industrial Revolution slides that you read through on Tuesday, you will be filling out the chart called the [Industrial Revolution positives and negatives](#).

Friday, May 1 -- Read the Newsela article, "[The Industrial Revolution and technology](#)" to end our week in the Industrial Revolution!

The first American factories

By UShistory.org, adapted by Newsela staff on 08.11.19

Word Count **536**

Level **620L**



Image 1. Slater Mill in Pawtucket, Rhode Island, in 2006. The mill was built by Samuel Slater, sometimes called the "father of the American factory system." It was the first successful water-powered roller spinning textile mill in America, finished in 1791. It used a waterwheel to move machinery that spun cotton into thread. Image courtesy of Dietmar Rabich/Wikimedia Commons

Manufacturing changed the United States in the 1700s and 1800s. This period of growth and change was called the Industrial Revolution.

Before the late 1700s, goods were produced in homes or small shops. Soon, they were made by machines instead. The machinery was grouped together in factories.

At first, part of the technology used in these new businesses came from England. Later on, they came from Americans.

The first factory in the U.S. was made by Samuel Slater. He had left England. Slater knew the secrets to building machines that processed cloth. In 1790, he built a factory from memory. It could produce spindles. These machines could twist fibers to make yarn. It was used to make cloth products.

Three years later, the first factory was built to manufacture wool products. It was constructed by John and Arthur Shofield. They also came from England.

From then until the 1850s, there were over two million spindles. These were in over 1200 cotton factories. There were also 1500 factories producing wool in the U.S.

Beyond Cotton Factories

The factory spread to many other areas. In Pennsylvania, metal products were once made by small blacksmith shops. Soon, large furnaces and rolling mills did it instead. In Connecticut, tin products and clocks were produced. Sewing machines would be manufactured too.

At first, these new factories were paid for by business partnerships. In this setup, several people spent money for a factory. They paid for different business costs. If the business did well, the investors would make more money.

Shortly after the War of 1812, a new form of business grew. It was called a corporation. In this setup, many more individual investors would put money into a company. It was designed so that people couldn't lose more money than they invested. This was a change. In the past, many people had to sacrifice all they owned to bet on a company. If the company lost money, banks could seize the investors's houses.

In 1813, Frances Cabot Lowell, Nathan Appleton and Patrick Johnson formed the Boston Manufacturing Company. Together they built America's first all-in-one textile factory. In other words, it performed every operation needed. It turned cotton lint into finished cloth. They built more factories like this.

Others copied their corporation model. By 1840 it was common.

Young Women Leave Farms To Work In Factories

Lowell and his partners built their production sites in Massachusetts. Lowell hired young, unmarried women from New England farms as workers.

These "mill girls" were held to strict rules. They could not stay out in public past a certain time.

The work was tough. They labored 12 hours per day, six days per week. Still, many women enjoyed new freedoms. They had not known this life on the farm. The pay was higher than they might have had as houseworkers too.

Soon, more people began moving from the countryside to cities. During the 1840s, the population of the country increased by one-third. The population of towns and cities of 8,000 or more increased by 90 percent.

The corporation would become the central force in America's business growth.



The Industrial Revolution



No Machines, No Problem!

Look around your house and spot 5 things that run on electricity.

Now imagine not being able to use any of those devices. Imagine living in a world where you make your own goods, such as soap, and grow your own food instead of going to the store to buy it.

That is how people in North America and Europe lived before the time period called the Industrial Revolution.



What Happened During the Industrial Revolution?

The Industrial Revolution stretched from 1760-1860. During this time, there were many changes:

1. Instead of making goods by hand, people used machines, and science to make things.
2. Large amounts of products could be made at one time. Think assembly lines and big factories. This was way more efficient!
3. Large numbers of people ditched the farm life and moved to big cities.

The Industrial Revolution created modern life!

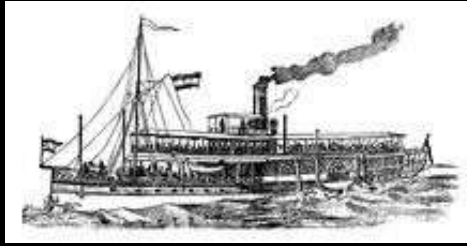
Inventions during the Industrial Revolution

Once cotton or wool was gathered, they had to be spun into yarn in order to be used to make items such as clothing or rugs. This was a hard task. In 1764, Englishman James Hargreaves decided to develop a device that would speed up thread production. He named the machine the spinning jenny. This machine was able to spin eight threads of cotton into one piece of yarn. This was way more efficient than trying to do this by hand.



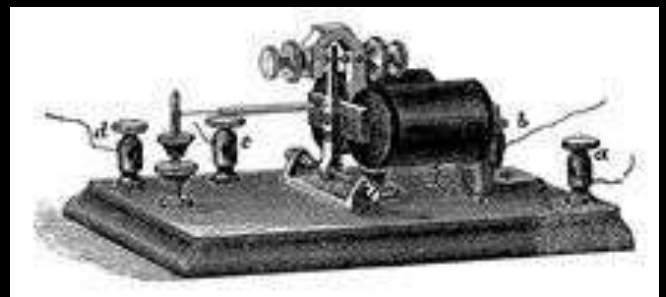
Steamboat

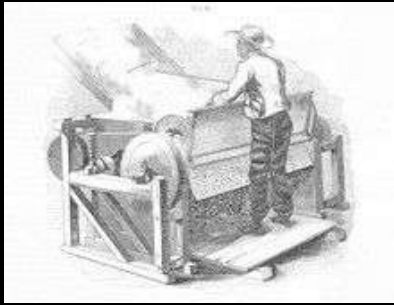
Before the Industrial Revolution travel was slow and difficult. After the invention of the steam engine, which was a source of power for machines, this changed. In 1807, Robert Fulton used a steam engine to power a 133 ft. steamboat. This steamboat made trade faster and easier.



Telegraph

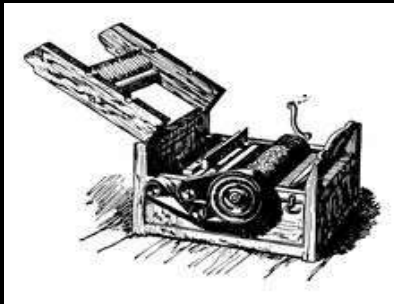
Before the age of smartphones, the quickest way to send a message was by train. This was until the telegraph was produced. On May 24, 1844, Samuel F.B. Morse, the telegraph's inventor, sent the first electronic message. The telegraph could transmit messages over long distances from one location to another. This allowed people to communicate almost instantly! The telegraph used a series of tapped out dots and dashes called Morse Code.





Cotton Gin

In 1793, Eli Whitney invented the cotton gin. This new invention removed seeds from cotton. Just one single machine could work as fast as 50 people doing it by hand. Before the cotton gin, the use of enslaved workers was becoming less and less, but because plantation owners were earning more profits, they produced more crops. This led them to use more enslaved workers than ever in their fields.



Stethoscope

French doctor Rene Laennec created the first stethoscope. Before this invention, doctors would put their ear directly on the patients chest to listen to their heart. In 1816, Rene Laennec held a stiff paper cylinder to his ear and pressed it against his patients chest. He realized this enhanced the sound of the patient's heart and lungs. This led him to create the first stethoscope made of a hollow wooden tube. The stethoscope is a vital tool that doctors still use today!



Mechanical Reaper

Farming was a difficult task before the Industrial Revolution. A farmer could only harvest two to three acres a day. Then came the invention of the mechanical reaper in 1828 by Cyrus McCormick. A mechanical reaper was a machine used to harvest crops. With this invention farmers were able to plant more crops, make a better profit, and feed more people.



How did the Industrial Revolution Affect People in America?

You've read about many of the positive effects of the Industrial Revolution such as improved transportation and faster communication. There were also changes in health and hygiene. An English doctor did an experiment and was able to develop a vaccination to prevent smallpox. Better ways to reduce pain during surgery (laughing gas) and ways to prevent infection were developed.

Frenchman Nicolas Appert found a way to preserve fruits and vegetables to make them last longer. This improved people's diets because they were now able to eat these foods in times when they couldn't grow them.

A process to remove the bacteria from milk called pasteurization was developed by Frenchman, Louis Pasteur. This made milk and other liquids that were pasteurized safer to drink and made them last longer.

How did the Industrial Revolution Affect People in America ?

Human suffering

People worked long hours (14 hour days, 6 days a week) in the factories and were paid very little (\$6/week). Often times, the longer they worked, the deeper into debt they went. The working conditions were dangerous. It was not uncommon for workers to be injured or killed after getting caught in a machine in the factories. Factories polluted the air and rivers which made living conditions worse and worse. Poor workers often had to live in dirty crowded apartments or cheap houses owned by the company.

"When I had worked about half a year, a weakness fell into my knees and ankles; it continued and it has got worse and worse. In the morning, I could scarcely walk. If I were five minutes late, the over-looker would take a strap, and beat us till we were black and blue."

-Joseph Hebergam, 17, English Textile worker, 1831

How did the Industrial Revolution Affect People in America?

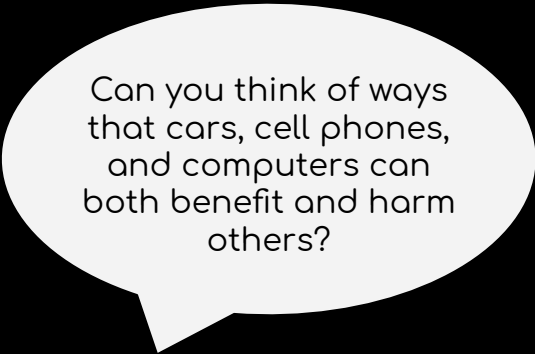
Child Labor

Children had to work full time in order to help support their families. Children as young as four years old worked long hours in factories under little to no supervision. Supervisors showed little interest in the health and safety of child workers. Sometimes children were preferred over adult workers because they were small and could easily fit between machines and small spaces. Children worked for very little pay (50 cents a week for children under 10 years old). In the 1930's there were laws passed that ended most child labor in the United States.



The Industrial Revolution Continues

The Industrial Revolution never really came to an end. Technological changes continue to affect the world we live in today in both positive and negative ways. The changes are different than those created during the Industrial Revolution, but some of their effects are just as important.



Can you think of ways that cars, cell phones, and computers can both benefit and harm others?

Name: _____

The Industrial Revolution

Invention	Inventor	Year	What impact did it have?
Spinning Jenny			
Steamboat			
Telegraph			
Cotton gin			
Stethoscope			
Mechanical Reaper			

Name _____

The Industrial Revolution

DIRECTIONS: Fill out the chart below by listing 2 positive effects of the Industrial Revolution and listing 2 negative effects of the Industrial Revolution. **Use the Industrial Revolution slide to find this information.**

Positive Effects	Negative Effects
1.	1.
2.	2.

The Industrial Revolution and technology

By National Geographic Society, adapted by Newsela staff on 05.10.19

Word Count **696**

Level **590L**



Image 1. The Winter Cumbrian Mountain Express, hauled by steam locomotive No. 45690 Leander, crosses the Ribbleshead Viaduct in North Yorkshire, England. The steam engine was a crucial development of the Industrial Revolution. Photo: Peter Byrne/PA Images via Getty Images

The Industrial Revolution (1750–1850) brought some of the biggest and fastest changes in human history. It began in Great Britain. Then, it spread to other European countries and the United States. Many new machines were first introduced during this period. People's everyday lives were greatly transformed. Below are some of the key changes.



Agriculture

Eighteenth-century Britain saw a major increase in agricultural productivity. Farms grew more crops than ever before. New inventions were partly responsible. The seed drill is one important example. Farmers also learned better farming methods. New kinds of crops were developed as well. The result of all this was far bigger harvests. In turn, that led to a quickly growing population.

Farming became much more large-scale during these years. Land long open to all became private property. Small peasant farmers soon began struggling. Many were forced to move to the cities. Often, they became factory workers.

Energy

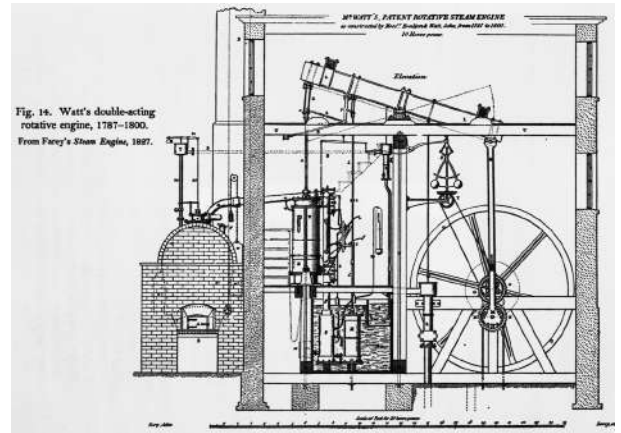
By the 1500s, England had lost many of its forests. This led to a shortage of wood for fuel. Coal then became a new fuel. By the late 1600s, England had largely switched to coal. The coal-fired steam engine was soon developed. It became the key technology of the Industrial Revolution.

In pre-industrial Europe, water power was widely used as a source of energy. By the late 1700s, however, steam engines had been perfected. Steam power soon replaced water power. It became the key power supply.

The steam engine powered factory work. It also freed manufacturers from the need to build their factories near water. Large new factories were built in cities. They turned many cities into industrial centers.

Metallurgy

Many valuable metals can be found in rock. Rock containing metal is called ore. Metallurgy involves extracting, or removing, that metal. The metal is separated out through heating and melting, or smelting. Metal heated to the melting point is called molten. Metallurgy also involves the shaping of metal.



Wood was long used to power the smelting process. That changed during the Industrial Revolution. Metallurgists switched to coal. The new fuel turned out to be highly useful. It allowed for much greater iron production. Iron is one of the strongest materials.

There were other advances as well. One was a new way of stirring molten iron. It made it possible to produce larger amounts of wrought iron. Wrought iron is very malleable, or moldable. It is perfect for making machinery.

Textiles

Textiles were key to Britain's economic growth between 1750 and 1850. Cotton was the most important of these fabrics. Cotton production had long been a small-scale business. People wove and spun cloth in their homes. Most of these workers lived in small villages. During the years of the Industrial Revolution, all that changed. Cotton production turned into a large, factory-based business. Machines took over much of the work. More cloth than ever before was produced.

Several new inventions greatly increased productivity in the textile industry. They included the spinning jenny, the spinning mule, the cotton gin, and the power loom. Steam power was also very important. It sped up the production of textiles. It was used to run power looms and other machines.

Chemicals

The chemical industry also developed very quickly during these years. It arose partly to meet the demand for better bleaches. These were used to whiten cloth. Soon, many other valuable chemicals were being developed.

Transportation

Huge increases in the production of goods had many ripple effects. One was a need for better transportation systems. Producers needed faster ways to get their goods to market. Because of this, better roads were built. New canals were dug. Soon, it became far easier to move goods and people around the world.

The first steamboats appeared in the early 1800s. Steam engine trains appeared soon after. Railways quickly spread across Europe and North America. They helped industrial societies grow even further.



Quiz

- 1 Which sentence from the section "Agriculture" explains a reason why the population grew quickly during the Industrial Revolution?
- (A) Farms grew more crops than ever before.
 - (B) Small peasant farmers soon began struggling.
 - (C) Many were forced to move to the cities.
 - (D) Often, they became factory workers.

- 2 Read the introduction [paragraph 1] of the article.

The Industrial Revolution (1750–1850) brought some of the biggest and fastest changes in human history. It began in Great Britain. Then, it spread to other European countries and the United States. Many new machines were first introduced during this period. People's everyday lives were greatly transformed. Below are some of the key changes.

Which question is answered in this paragraph?

- (A) Why was the Industrial Revolution important?
 - (B) Why did the Industrial Revolution begin in Great Britain?
 - (C) What new machines were invented during the Industrial Revolution?
 - (D) What kind of work did people do during the Industrial Revolution?
- 3 If readers are looking for information on the use of steam engines during the Industrial Revolution, which section should they read?
- (A) "Agriculture"
 - (B) "Energy"
 - (C) "Metallurgy"
 - (D) "Chemicals"
- 4 What information will the reader find in the section "Textiles"?
- (A) a description of how the chemical industry developed very quickly during the Industrial Revolution
 - (B) a description of the first steamboats and steam engine trains that appeared during the Industrial Revolution
 - (C) an explanation of why cotton production was important in Britain during the Industrial Revolution
 - (D) an explanation of why railways spread across Europe and North America during the Industrial Revolution