READ IOWA HISTORY

STUDENT MATERIALS



Industrial Revolution

LESSON PLAN FOR SUPPORTING QUESTION

How did the Industrial Revolution change the production of goods?

4TH GRADE

STATE HISTORICAL SOCIETY OF IOWA
IOWA DEPARTMENT OF CULTURAL AFFAIRS

LIBRARY OF CONGRESS
TEACHING WITH PRIMARY SOURCES

Think Like a Geographer

A person who studies the environment and how it impacts people.

- Describe details about this location. What do you notice that can help figure out where this place is located? What is unique?
- Why would people move to or leave this place?
- How would people travel to this location? How has traveling to this location changed over time?
- Describe details about people who live here and how they impact the location? How does the location impact the people who live there?

Think Like an Economist

A person who studies the way people make decisions about money.

- Describe the people in relation to the location. What jobs or occupations do you think people had? Why do you say that? How do you think they met their needs and wants?
- How do decisions made by individuals affect themselves and the economy?
- How do decisions made by businesses affect people?
- How do jobs impact people and the economy? Describe what happens when jobs are lost.

Think Like a Historian

A person who explains changes that happened in the past.

- What happened in the past? Why is it important to understand what has happened in the past?
- How did past decisions or actions significantly transform people's lives?
- What has changed or stayed the same over time? Who benefited from the change? Why? Who did not benefit? Why?
- Who or what made changes happen? Who supported the change? Who didn't? Why?

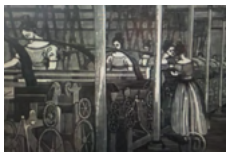
Think Like a Political Scientist

A person who studies governments and how they work.

- What problems might people have faced in this society?
- What rights do people have? What rights are people missing?
- What might lead to people being treated fairly? What might lead to people being treated unfairly?
- What information can be gathered about trends at this location or time period that might change or impact the future?

Name _____

Industrial Revolution: Check for Understanding

How did the Industrial Revolution change the production of goods?	
Turning Points in History - Industrial Revolution (video) 	
Occupational Portrait of a Watchmaker, between 1840 and 1860 	
Occupational Portrait of a Blacksmith, between 1850 and 1860 	
Occupational Portrait of Two African American Chimney Sweeps, between 1860 and 1870 	
Barrel Makers in Union, Iowa 	

How did the Industrial Revolution change the production of goods?

Occupational Portrait of a Woman Working at a Sewing Machine, ca. 1853 	
African-American Women Weaving Rug at Hampton Institute in Virginia, 1899 	
Sadie Pfeifer, Child Worker, at Lancaster Cotton Mills in South Carolina, November 30, 1908 	
"Assembly Line at the Ford Motor Company's Highland Park Plant," ca. 1913 	
Washing Machine Assembly Line in Maytag Plant in Newton, Iowa, 1949 	
"More Than Just Washing Machines" Article about Maytag Plant in Newton, Iowa, June 21, 2019 	

Rise of Industrial America

Work in the Late 19th Century

The late 19th-century United States is probably best known for the vast expansion of its industrial plant and output. At the heart of these huge increases was the mass production of goods by machines. This process was first introduced and perfected by British textile manufacturers.



In the century since such mechanization had begun, machines had replaced highly skilled craftspeople in one industry after another. By the 1870s, machines were knitting stockings and stitching shirts and dresses, cutting and stitching leather for shoes, and producing nails by the millions. By reducing labor costs, such machines not only reduced manufacturing costs but lowered prices manufacturers charged consumers. In short, machine production created a growing abundance of products at cheaper prices.

Mechanization also had less desirable effects. For one, machines changed the way people worked. Skilled craftspeople of earlier days had the satisfaction of seeing a product through from beginning to end. When they saw a knife, or barrel, or shirt or dress, they had a sense of accomplishment. Machines, on the other hand, tended to subdivide production down into many small repetitive tasks with workers often doing only a single task. The pace of work usually became faster and faster; work was often performed in factories built to house the machines. Finally, factory managers began to enforce an industrial discipline, forcing workers to work set--often very long--hours.

One result of mechanization and factory production was the growing attractiveness of labor organization. To be sure, craft guilds had been around a long time. Now, however, there were increasing reasons for workers to join labor unions. Such labor unions were not notably successful in organizing large numbers of workers in the late 19th century. Still, unions were able to organize a variety of strikes and other work stoppages that served to publicize their grievances about working conditions and wages. Even so, labor unions did not gain even close to equal footing with businesses and industries until the economic chaos of the 1930s.

To find other documents in American Memory relating to this topic, you might use the terms work or workers, factories, or specific occupations such as miner, machinist, factory worker, or machine operator.

Courtesy of Library of Congress, "Rise of Industrial America: Work in the Late 19th Century," Date Unknown

Name _____

Close Reading Strategy

Title of the text:

1. **Read carefully to gain basic understanding.**
   What is the text mainly about? What is the **main idea?** Write the main idea in the top margin in the clouds of the paper. *Highlight evidence in green.*

2. **Read again and dig deeper.**
   What are the **big ideas** that connect to the main idea? *Highlight evidence in yellow and write them on the note-taking sheet on the next page.*

3. **Read again and dig for details.**
   What are the details for your big ideas? *Highlight evidence in red and write them on your note-taking sheet.*

4. **Read again to summarize your thinking.**
   Summarize the article in five to seven sentences using your main idea, details, on your worksheet to determine key concepts and ideas. Write the summary on the back of the worksheet.

Taking Notes about Reading Passage

Introductory Paragraph The main idea is...	
Paragraph 2 Details...	The big idea of the paragraph is • • • • •
Paragraph 3 Details...	The big idea of the paragraph is • • • • •
Paragraph 4 Details...	The big idea of the paragraph is • • • • •
Conclusion Paragraph The concluding idea is...	

Summary of Reading Passage

Write summary of **“Rise of Industrial America: Work in the Late 19th Century.”**

Occupational Portrait of a Watchmaker, between 1840 and 1860



A watchmaker is a craftsman who makes and repairs watches by hand. Peter Henlein, a locksmith and clockmaker from Germany in the 1500s, was the inventor of the world's first watch. In the United States, the railroad chose their own time standards until 1883. Standard time was made a law in the U.S. until the 1918 Standard Time Act created standard time in time zones. *Courtesy of Library of Congress, "Occupational portrait of a watchmaker, three-quarter length, seated at table with watches," between 1840 and 1860*

Occupational Portrait of a Blacksmith, between 1850 and 1860



A blacksmith is a craftsman who creates things out of iron. They made many things used in everyday life: nails, screws, bolts and other fasteners; horseshoes, sickles, plowshares, axes and other agricultural tools; hammers, candlesticks and other household objects. They also made swords, shields and armour; wheel rims and other metal parts in wagons and carriages; fireplace fittings and implements; spikes, chains and cables used on ships. *Courtesy of Library of Congress"Occupational Portrait of a Blacksmith," between 1850 and 1860*

Occupational Portrait of Two African-American Chimney Sweeps, between 1860 and 1870



A chimney sweep is a person who clears ash and soot from chimneys. Chimney sweeping was one of the more difficult, hazardous and low-paying occupations of the time period. In the northern United States, this trade transitioned from primarily white chimney sweeps to African-American "sweep-boys" from the South. *Courtesy of Library of Congress, "Occupational Portrait of Two African American Chimney Sweeps," Charles D. Fredricks & Co., between 1860 and 1870*

Barrel Makers in Union, Iowa, Date Unknown



Barrel making or being a cooper is a skilled trade. Everything was stored in these wooden containers; flour, grains, salted meats and fish, water, nails, beer, spirits, whale oil and many more. *Courtesy of the State Historical Society of Iowa, "Barrel Makers in Union, Iowa," Date Unknown*

Name _____

Analyze Two Images

1. Stop and Source

2. Examine each image closely.

Who is in the images? Describe the person(s) you see.

Image 1:	Image 2:

What do the images tell us about the people in them? What are they doing?

Image 1:	Image 2:

When were the images taken?

Image 1:	Image 2:

Where were the images taken?

Image 1:	Image 2:

Why do you think the images were taken?

Image 1:	Image 2:

3. What questions do you have about each image?

Image 1:	Image 2:

4. From which image did you generate more questions?

Image 1	Image 2

5. Where could we go to investigate/research our questions?

Name _____



Answer Questions, Cite Sources

Question	Notes
Source Cited:	

Question	Notes
Source Cited:	

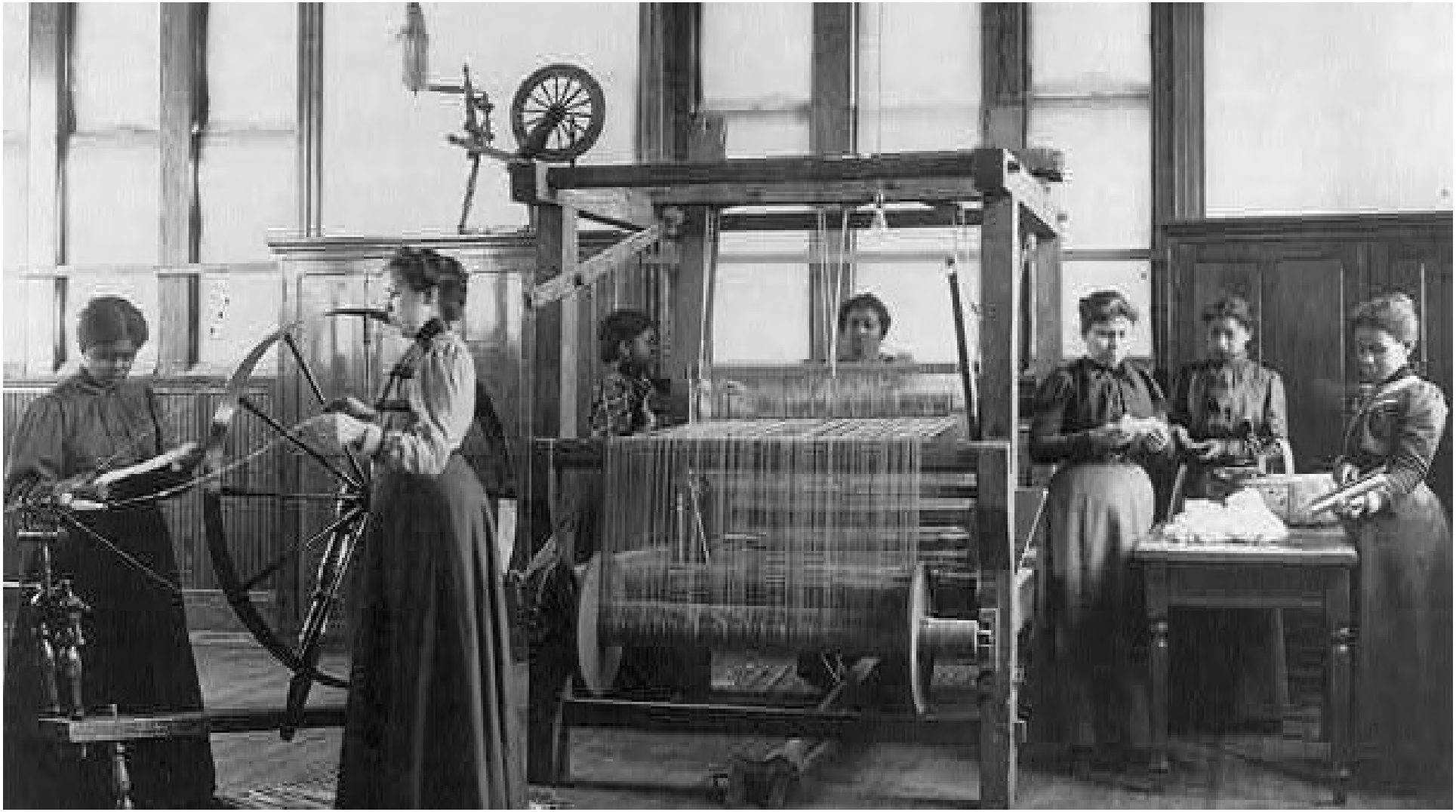
Question	Notes
Source Cited:	

Question	Notes
Source Cited:	

Question	Notes
Source Cited:	

Question	Notes
Source Cited:	

African-American Women Weaving Rug at Hampton Institute in Virginia, 1899



This photograph shows African American women learning how to weave rugs in a home economics class. Devices like the weaving shuttles and bobbins were used to make cloth and rugs in larger looms, like the one in this photo. The bobbin carried the yarns to make the cloth. The weaver passed the shuttle from side to side, hand to hand, between the layers of the thread. The flying shuttle was invented in 1733, making it possible to weave wider fabrics, and to weave more quickly. This allowed for the invention of power looms, which were used in American textile mills. By the 1830's, textile mills employed many young women. *Courtesy of Library of Congress, Johnston, Frances B., "African-American women weaving rug in home economics class at Hampton Institute, Hampton, Va.," 1899*

Sadie Pfeifer, Child Worker, at Lancaster Cotton Mills in South Carolina, November 30, 1908



Sadie Pfeifer, just four feet tall, worked half a year. She was one of the many small children at work in Lancaster Cotton Mills tending to a row of spinning machines. Spinning machines are set up in long rows that a spinner would walk along and piece together broken ends. Sadie would walk up and down the aisles, brushing lint from machines and watching the spools or bobbins for breaks. *Courtesy of Library of Congress, Hine, Lewis Wickes, "Sadie Pfeifer, 48 inches high, has worked half a year...," 30 November 1908*

Occupational Portrait of a Woman Working at a Sewing Machine, ca. 1853



A seamstress is a person who sews, someone who earns a living by sewing. At first, women's clothes were made at home by the ladies themselves, their servants or a professional seamstress. Fabrics, increasingly mass produced, became more affordable during the Industrial Revolution, and demand for clothes grew among the newly-wealthy, middle class women. *Courtesy of Library of Congress, "Occupational Portrait of a Woman Working at a Sewing Machine," ca. 1853*

Name _____



K-W-L Chart

K What We Think We Know	**W** What We Want to Know	**L** What We Hope to Learn
Stop and Source	Why do you think they're doing this?	Where could you find the answers?
People:	How do you think they are feeling?	
Objects:	When do you think these photos were taken? How do you know?	
What are they doing?	Questions these photos raise:	

Name _____



K-W-L Chart

K What We Think We Know	**W** What We Want to Know	**L** What We Hope to Learn

Name _____



Answer Questions, Cite Sources

Question	Notes
Source Cited:	

Question	Notes
Source Cited:	

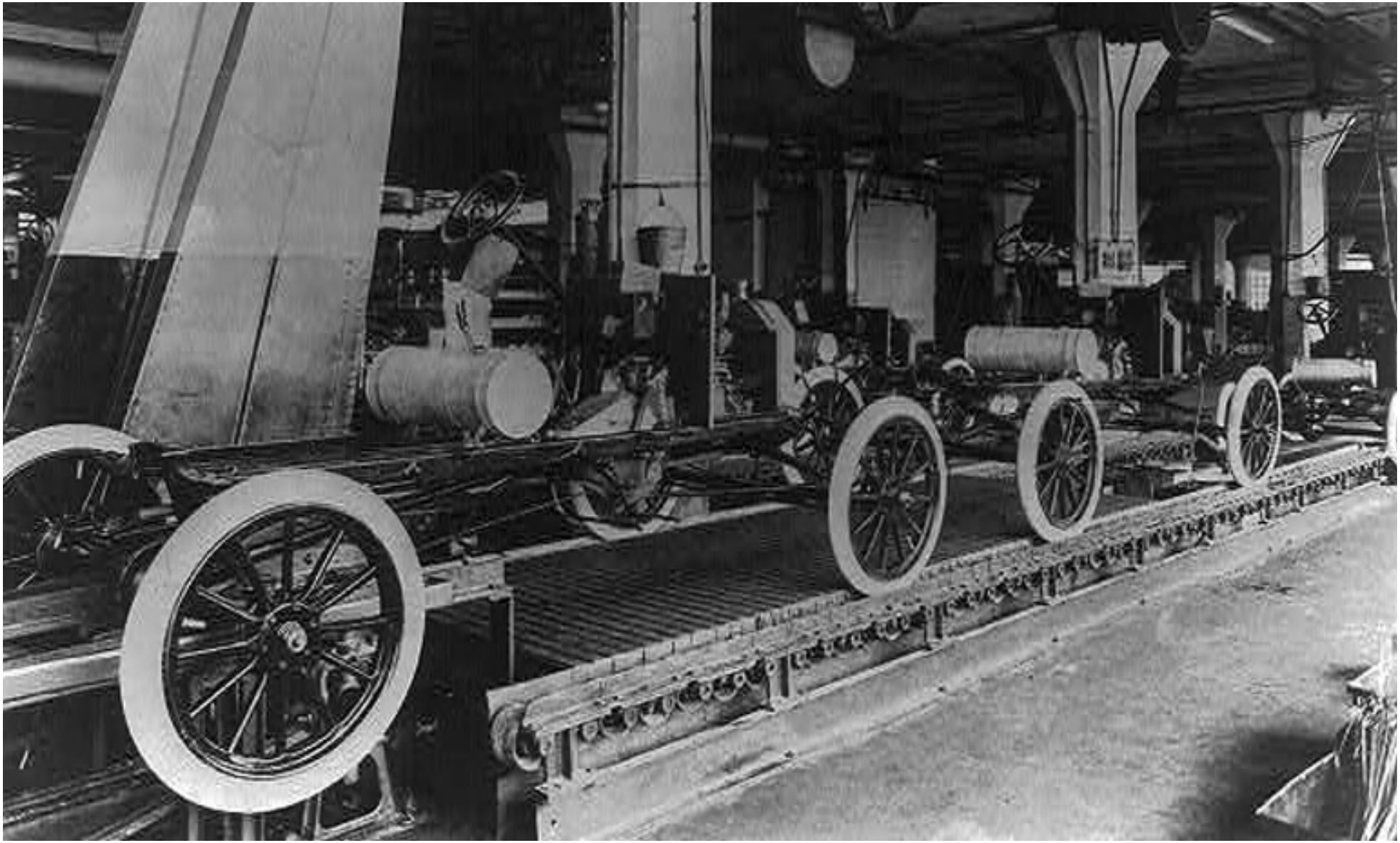
Question	Notes
Source Cited:	

Question	Notes
Source Cited:	

Question	Notes
Source Cited:	

Question	Notes
Source Cited:	

"Assembly Line at the Ford Motor Company's Highland Park Plant," ca. 1913



Henry Ford and his engineers constantly searched for ways to speed up car production and keep costs low. The integration of a moving assembly line in Highland Park Plant allowed the company to do just that. From 1908-1927, Ford Motor Company produced over 15 million Model T cars and the price dropped from $850 to as little as $260. *Courtesy of Library of Congress"Assembly Line at the Ford Motor Company's Highland Park Plant," ca. 1913*

Name _____



K-W-L Chart

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What are they doing?	Questions this photo raises:	

Name _____



K-W-L Chart

K What We Think We Know	**W** What We Want to Know	**L** What We Hope to Learn

Name _____

Claim	Evidence	Reasoning
 My claim is... I think... I noticed...	 I found...; My evidence is... My proof is... Another example... I know this is true because...	 This happened because... The reason for this is... I conclude...

Washing Machine Assembly Line in Maytag Plant in Newton, Iowa, 1949



Employees at work on the washing machine assembly line in the Maytag plant in Newton, Iowa. During the 1950s, the laundry and kitchen appliance industry grew rapidly. Maytag was manufacturing washers and dryers for commercial self-service laundries and commercial operators. Since Maytag was a much smaller company, they decided to limit manufacturing of washers and dryers, alongside marketing ovens and refrigerators built by other companies. The company was known for its reputation and renamed the corporate office in Newton, Iowa, as "One Dependability Square." *Courtesy of State Historical Society of Iowa, "Washing Machine Assembly Line in Maytag Plant," 1949*

"More Than Just Washing Machines" Article about Maytag Plant in Newton, Iowa, June 21, 2019

More than just washing machines
Museum delves into Maytag's varied production history

By Christopher Braunschweig Newton Daily News
June 21, 2019

Jack Streeter, board president of the Jasper County Historical Society, conducts a tour Thursday at the Jasper County Historical Society. As one might expect, displays are dedicated to the Maytag Corporation, which once held offices and factories in Newton until it's purchase to the Whirlpool Corporation.

Surrounded by, at one time, nine similar businesses in Newton, a place that many folks considered to be the "washing machine center of the world," the Maytag Corporation emerged on top as the premiere company that outlasted its competition, until it was purchased by Whirlpool Corporation in 2006 and subsequently closed its facilities.

As one might expect, the longtime manufacturer's flagship products — wooden, aluminum and metal variants alike — take up a lot of space at the Jasper County Historical Museum, but as do its other, lesser known appliances and items.

Jack Streeter, board president of the Jasper County Historical Society, said the Maytag factories used to produce agricultural equipment and other home appliances. A seed grader and an old vacuum are on display at the local museum to prove it. One item the museum doesn't have is an old Maytag tractor, which are very difficult to come by. For now, a picture will suffice.

"We started out making farm equipment and made threshing machines and things like that, and then they dabbled into washing machines," Streeter, 92, said Thursday."And finally they found out the market for washing machines was a lot better than the market for farm equipment."

Founded 126 years ago by F. L. Maytag, the Newton business was once the workplace of the 92-year-old Streeter, who became head of the maintenance department for Maytag Plant 2. He retired from the company after 39 years. Streeter's mother and father had also worked at Maytag.
Now, he gets to revisit his old employment and teach others about the company at the museum.

Maytag was the first company, Streeter added, to build a cast aluminum washing machine body in the 1920s, a style that was very popular among customers and would eventually kickstart the company into national recognition. Streeter said his parents had a similar model in their basement for "20-some years."

Bill Perrenoud, executive director of the Jasper County Historical Museum, said Maytag was known for its dependability, at least that's how the company sold itself as. Calling it a "top notch business" back in its heyday, Perrenoud referred to a piece on display in the museum that says: "When you meet a Maytag salesman, you meet a gentleman."

Courtesy of Newton Daily News, Braunschweig, Christopher, "More Than Just Washing Machines," Newton Daily News, 21 June 2019

"More Than Just Washing Machines" Article about Maytag Plant in Newton, Iowa, June 21, 2019

He added, "That was their image, and they portrayed that. The locations where they sold their washers appreciated that. They knew they were going to have gentleman; if they were to make an agreement they'd follow through on it. The Maytags hired good people (to make and sell products)."

Curiously enough, the gas-powered engines packed inside Maytag's washing machines found other uses and could power other appliances like lawnmowers and pumps. Staff at the Jasper County Historical Museum have arranged the engines like marble busts inside its South 15th Avenue West facility.

A small race car on display at the museum, Street said, was not sold commercially, but rather was a promotional or sales item. And how did that car operate exactly? The gas-powered engine that was used in a Maytag-brand washing machine.

Researching new additions for its signature product was nothing new for Maytag either. Streeter pointed out a machine on display that was able to do more than wash clothes. With the right kind of attachment, it could churn butter and grind meat. Granted, it couldn't do all three actions at once. Maytag had even tried adding an ice cream maker attachment.

Ironing machines, dishwashers, refrigerators and more. If Maytag determined a need for something, the company would make it. Staff said a Maytag room is currently under development that further highlight's the Maytag family's other ventures besides washing machines, like craft beer and blue cheese.

Maytag didn't seem to be afraid to try new products, successful or not. However, Perrenoud said the choice in products was not random. The company, he said, likely put in a lot of research hours and listened to the needs of its customers to decide what appliance would be distributed.

"It was well-thought-out," Perrenoud said. "You take a look at the different washing machines they produced and the changes they made from one model to the next would be looking for improvements. And before they made those improvements they tested them."

When he toured Maytag many years ago, Perrenoud remembered seeing the company's test facility where researchers were, among other things, analyzing "load after load after load" of laundry to see how well their machines held up. Niche items, he continued, didn't seem to scare away Maytag.

Although Maytag Corporation is no longer in Newton, the company certainly left a lasting impression on the community. The family name is ingrained in the town's infrastructure. Perrenoud recalled an old Maytag advertising campaign in which the company's mascot repairman, Ol' Lonely, had a dog — a Basset Hound named Newton.

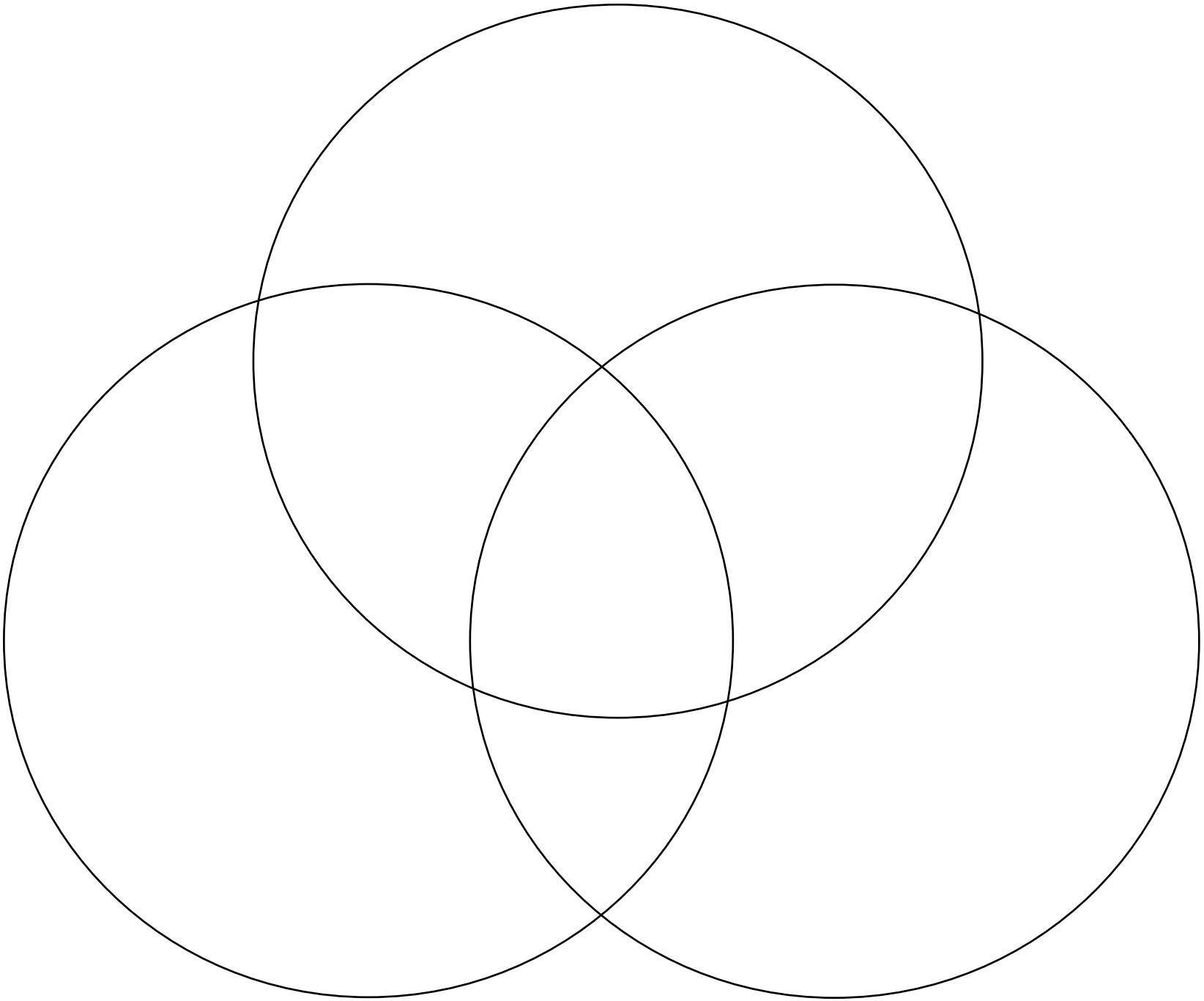
"One of the catchphrases was: 'Newton needs Maytag,'" Perrenoud said. "... And I think there's a lot of truth to that. Newton would not have been half the community it would have."

Editor's Note: "History Lesson" is a weekly series inspired by the Jasper County Historical Museum's 40-year anniversary. Newton Daily News will publish a story every Friday (until the museum is closed) featuring the people who work to preserve and promote the region's past endeavors, while also showcasing the historical and educational significance of artifacts and exhibits on display in the museum.

Courtesy of Newton Daily News, Braunschweig, Christopher, "More Than Just Washing Machines," Newton Daily News, 21 June 2019

Triple Venn Diagram

Name _____



Name _____

Industrial Revolution: Lesson Summative Assessment

Topic _____	
Introduction/Lead Sentence Introduce a topic or text clearly, state an opinion: • Hook the reader. • Restate the Question, and answer the Question: "How does innovation impact people's lives?"	
Supporting Details & Evidence • Use a transition to begin..... • Start with a big idea sentence to state a reason and explain with evidence (tell how the evidence connects to the lead sentence).	
Supporting Details & Evidence • Use a transition to begin..... • Start with a big idea sentence to state a reason and explain with evidence (tell how the evidence connects to the lead sentence).	

Supporting Details & Evidence continued	
Supporting Details & Evidence • Use a transition to begin..... • Start with a big idea sentence to state a reason and explain with evidence (tell how the evidence connects to the lead sentence).	
Conclusion Sentence(s) Create a concluding statement(s). • Restate the lead/topic sentence in a new way • Give a final, convincing thought to leave with the reader	

Industrial Revolution Vocabulary List

Assembly Line

An assembly line is a line of machines, tools and workers in a factory that a product moves along while it is being built or produced.

Industrial

Industrial is a word used to describe things that relate to or are used in industry. This includes the people who work in factories or the things made in factories.

Innovation

An innovation describes a new method, idea, product, etc. It can refer to something completely new or to a new change made to an existing product, idea or field.

Labor

Labor is work. It is a human activity that provides the goods or services in an economy. Labor includes the services performed by workers.

Mass Production

The production of large quantities of a product by an automated mechanical process.

Mechanization

Mechanization is the introduction of machines or automatic devices into a process, activity or place. Sometimes the act or process of introducing machines into an industry or other area of activity is in order to replace human labor.

Revolution

A revolution is the sudden, complete or marked change in something. This could be related to changes in areas such as an industry, an established government, a political system or other societal norms and practices.

Skilled Craftsperson

A skilled craftsperson is a worker who practices a trade or handicraft, creating something from start to finish by hand.

Union

An organization of workers formed for the purpose of advancing and advocating for its members' interests in respect to wages, benefits and working conditions.