The Industrial Revolution
Essential Questions

What is a revolution?

What was the Industrial Revolution?

How did the Industrial Revolution change American lives?

What inventions significantly changed American lives?

How did the Industrial Revolution affect the growth of cities and city life?

What important modes of transportation were developed and helped people travel West?
**Vocabulary**

Look each word up in your textbook. Many words can be found in the glossary. You will also have to look some up using the index. Write the definition or an explanation of each term below. Illustrate the term. Each illustration should include color.

<table>
<thead>
<tr>
<th>Illustrate</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial Revolution</td>
<td></td>
</tr>
<tr>
<td>plantation</td>
<td></td>
</tr>
<tr>
<td>cotton gin</td>
<td></td>
</tr>
<tr>
<td>immigrant</td>
<td></td>
</tr>
<tr>
<td>Samuel Slater</td>
<td></td>
</tr>
<tr>
<td>interchangeable parts</td>
<td></td>
</tr>
<tr>
<td>spinning jenny</td>
<td></td>
</tr>
<tr>
<td>capitalist</td>
<td></td>
</tr>
<tr>
<td>canal</td>
<td></td>
</tr>
<tr>
<td>Factory system</td>
<td>Illustrate</td>
</tr>
<tr>
<td>---------------</td>
<td>------------</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>turnpike</td>
<td></td>
</tr>
<tr>
<td>corduroy road</td>
<td></td>
</tr>
</tbody>
</table>
1820: The Missouri Compromise settled a slavery dispute and avoided a threat to national unity.

In 1818 Missouri petitioned for statehood as a slave state, an event that threatened to upset the balance of power: there were 11 free states and 11 slave states. New York Congressman James Tallmadge introduced an amendment to the statehood bill, prohibiting further importation of slaves into Missouri and freeing the children (at age 25) of slaves already there. Although the Tallmadge Amendment failed to pass, it stirred the first national debate on slavery.

Congress solved the immediate problem with the Missouri Compromise of 1820 which:
1) allowed Missouri to enter the Union as a slave state—but prohibited slavery in the rest of the Louisiana Purchase (excluding Missouri) north of 36 degrees and 30 minutes north latitude, a line called the Missouri Compromise Line (forming the border between Missouri and Arkansas); and
2) provided for Maine to enter the Union as a free state, balancing the number of slave and free states in the Union, with 12 each.

![The United States, 1821 map](image)

1823: The Monroe Doctrine was the ultimate expression of nationalism.

In 1821 the U.S. gladly recognized the recently won independence of Spain's Latin American colonies and, along with Britain, welcomed trade with them.

Meanwhile, Europe's monarchical nations—France, Austria, Prussia, and Russia—planned to help Spain's king regain the colonies, lest the revolutionary spirit spread.

In 1823 Britain, fearful that trade would be disrupted, proposed a joint British-U.S. statement warning Europe against interfering with Latin American independence. The U.S., wanting no entangling alliance with Britain, decided to issue an independent warning.

President James Monroe boldly proclaimed the western hemisphere closed to European colonization. If Europe observed this, the U.S. would not intervene in Europe's affairs.

![Monroe Doctrine illustration](image)
**The Industrial Revolution** burst forth in America in 1815, favored by Republican policies during the War of 1812. Britain had begun earlier through the initiative of two men: Samuel Slater, a British textile worker, memorized textile machine blueprints, secretly brought them to America, and started at Pawtucket, R.I. the first factory in the U.S.

1798: Eli Whitney, a Connecticut school teacher, created the technique of interchangeable parts, which made possible mass-production industry.

How? I made rifle parts with such precision that a part of one rifle could be inserted in another. Unheard of before!

1793: While on a tutoring job in South Carolina, Eli Whitney rescued the dying cotton business by inventing the cotton gin, thus making slavery a vital institution for the south.

Ironically, Whitney’s contribution to industrialization helped the North defeat the South in the Civil War (1865), an event that ended slavery.

**A Transportation Revolution**

aided by the industrial revolution and Clay’s American System, enabled the U.S. to develop a national market economy.

The steamboat (1807), Cumberland National Road (1811-18), Erie Canal (1825), and railroad (1830) were important beginnings in lowering transportation costs and speeding communication.

**A National Language and Education: The Power of a School Teacher**

Noah Webster, while teaching school in Connecticut, (1758-1843) saw the need to create a national, “Americanized” language as a bond of national union. Why? 1) to discourage sectionalism, and 2) to discourage immigrants’ “blind imitation” of their native language and customs, a practice that—“once laudable”—limited their national identity as Americans.

Banking on the power of textbooks, Webster wrote numerous dictionaries (incorporating many Indian words), blue-backed spellers, and other textbooks that highlighted American speech, customs, and values.

Over 60,000,000 copies of Webster’s American Spelling Book (1783), used well into the 20th century, shaped the national character of several generations of Americans.
Era of Good Feelings with James Monroe

NATIONALISM:

Positive things that occurred while Monroe was President
- Went on a ____________ tour of the country
- By 1818, there were 11 slave and ____ free states
- In 1820 the _______________Compromise settled a slavery dispute and avoided a threat to national unity.
- The **Missouri Compromise** did two things:
  \[ \rightarrow \text{______________ entered the US as a free state} \]
  \[ \rightarrow \text{______________ entered the US as a slave state} \]
  In the rest of the ________________ it prohibited slavery north of ______ north latitude.
- While Monroe was in office the Adams-Onis Treaty was approved. This treaty gave ______________ to the US for ______________.

Era of Good Feelings does not last long!

Negative things that happened while Monroe was President
- Define sectionalism: ____________________________
  ____________________________
  ____________________________
- Disputes between different ________________ of the nation started.
- John Calhoun spoke for the ________________.
- Daniel Webster spoke for the ________________.

Explain the Monroe Doctrine:
Life on the Farm in the 1800's

In the country, farm work was the major occupation. There was an abundance of land, and it was often cheap and affordable, but there were often little or no houses for miles, and there was very little social interaction outside of your family. On the farm it took a great deal of work for families to tame the land, especially on the frontier, to produce crops for food and for sale.

Children rarely went to school, and their life became dedicated to work on the farm. Work on the farm was not easy work, it consisted of waking up before sunrise and hard manual work all day. One of the most grueling jobs for farmers during this period was picking corn. There were no machines to do this work. All corn was picked and shucked by hand.

Horses were the most important animals on the farm up until 1900. They were used to pull farm equipment, wagons and buggies. The first settlers in Iowa were farmers who raised wheat and corn. These crops were ground into flour and corn meal. The first mills in Iowa were small and hand-powered. Mills run by horse power were soon started.

For the most part farmers had to independently fend for themselves when it came to food, medicines and entertainment. A little girl named Nettie Spencer, who lived on a farm in the 1800’s, wrote about the conditions:

“One of the things I remember most as a little girl were the bundle peddlers who came around. They had bundles made up and you bought them as they were for a set price. I remember that some sold for as high as $1.50. In these bundles more all sorts of wonderful things that you didn't get in the country very often; fancy shawls and printed goods; silks and such other luxuries. It was a great day when the family bought a bundle.”

“Most of our medicine was homemade too. There wasn't much social life on the farm and I didn't pay any attention to it until I was older. The churches didn't have any young peoples. The only social thing about the church was the camp meetings. When a boy would get old enough for a wife the father would let him use the horse and buggy for a trip to the camp meeting to get him a wife.”

Holidays were not a big deal on the farm. However Spencer explains the one holiday that had meaning, “The biggest event of the year was the Fourth of July. Everyone in the countryside got together on that day for the only time in the year. The new babies were shown off, and the new brides who would be exhibiting babies next year. Everyone would load their wagons with all the food they could haul and come to town early in the morning. You can see what an event it was.”

Overall, life on the farm was very family orientated. Daily life was full of hard manual work, and often a dull social life because there were so few people around. A main difference between work on the farm compared to the city was that farmers made their own hours, usually seasonal in the warm months of the year when crops would grow, so farmers did not work year round like factory workers, however in the winter months farmers would suffer with little food and money until the harvest season came again.
City Life in the 1800's

Throughout the nineteenth century, more Americans lived on farms and in other rural areas than in cities. Nevertheless, in the early national period, around 1800, cities attracted many Americans, eager for adventure, or searching for work. There were definite benefits to living in the city. City dwellers had access to markets and shops; while those in the country, and on the frontier had to rely on Yankee peddlers, many of whom were less than honest, for any supplies or services they needed. In the cities, people were exposed to more different ways of life, and were often able to obtain work in factories or shipyards.

Cities gave opportunity for many people to find jobs. Because of the technology and inventions like the cotton gin and power loom, there was a demand for people to work in the factories. The factory system brought workers and machines together in one place to produce goods. Adult men were the most common workers, but cities also opened up opportunity for women, children and African Americans to find jobs in these factories.

While cities gave opportunity for many people to work and make money, the working conditions were often unbearable. Women and children found work in factories, where they worked year-round, almost 12 hours a day, with little or no break for lunch, and paid as little as one dollar a week. In some instances, workers, usually children who struggled working the large machines, were severely injured on the job, but little was done to compensate their injuries.

City life also had many forms of entertainment for its residents. Theaters, parties and dances were just a few ways of entertainment. In New York, Philadelphia and Charleston, plays, musical events and other staged entertainment were presented. Boston had banned stage shows; but, by 1791, there was an outcry for theatrical presentations, at least those which promoted good morals. Other social activities, such as horse racing, gambling,

Despite their benefits, cities were dangerous places to live. Without indoor plumbing, Americans attended to their sanitary needs either by going outside and digging a hole, or using chamber pots and emptying them outside. Other garbage was also thrown in the streets. Since there were no Departments of Sanitation to carry garbage away, it was left to the flies and stray animals. In the cities, these poor sanitary conditions were made worse by the high concentrations of people. Fires and sickness spread easily. One city resident described the city by saying, "The streets smelled like urine, and the garbage and waste on the streets created a perfect environment for rats and raccoons to live. This mess added to the crowdedness and chaos that was life in the city."

Overall city life opened opportunity for many Americans. However the living and working conditions were horrible and at times unbearable, but for some people who needed the money so badly this was their only option to make a living and support their family.
FARM LIFE  CITY LIFE

Positives:  Positives:

Negatives:  Negatives:
13.2 Geography of the North

From the rocky shores of Maine to the gently rolling plains of Iowa, the North included a variety of climates and natural features. Northerners adapted to these geographical differences by creating different industries and ways of making a living.

Climate  All the northern states experienced four very distinct seasons, from frozen winters to hot, humid summers. But the most northerly states, such as Maine and Minnesota, had colder winters and shorter summer growing seasons than states farther south, such as Pennsylvania and Ohio.

To a visitor from the South, the season that seemed most foreign was winter. Southerners weren’t used to the fierce cold that froze lakes and kept snow on the ground for months at a time.

Natural Features  Different areas of the North had distinctive natural features. Along the jagged New England coast, for example, there were hundreds of bays and inlets that were perfect for use as harbors. Shipbuilders, fishermen, and merchants flourished in this area, while towns such as Boston became busy seaports.

Inland from the sea lay a narrow, flat plain. During the ice age, glaciers had scraped across this plain, leaving behind a thin covering of rocky soil. Farming was never easy here. Instead, many people turned to trade and crafts. Others moved west in search of better farmland.

New England’s hills rose sharply above V-shaped valleys carved by steep streams. The hillsides offered barely enough land for a small farm, but they were covered with thick forests of spruce and fir. New Englanders found that they could make money by harvesting timber. The wood was used for shipbuilding and in trade with other countries.

Farther south in New York, Pennsylvania, and New Jersey, broad rivers like the Hudson and the Delaware had deposited rich soil over wide plains. People living in these areas supported themselves by farming.

Across the Appalachians lay the Central Plains, a large, forested region drained by the Ohio River and the “father of waters,” the mighty Mississippi. The Central Plains boast some of the best agricultural soil on Earth. From Ohio to Illinois, settlers cleared the forests to make way for farms.
13.3 Geography of the South

The South extended from Maryland south to the tip of Florida, and from the Atlantic Coast west to Louisianna and Texas. This section's climate and natural features encouraged southerners to base their way of life on agriculture.

Climate    Compared to the North, the southern states enjoyed mild winters and long, hot, humid summers. Plentiful rainfall and long growing seasons made this a perfect place for raising warm-weather crops that would have withered and died farther north.

Natural Features    Wide coastal plains edged the southern shoreline from Chesapeake Bay to the Gulf of Mexico. These fertile lowlands stretched inland for as much as 300 miles in parts of the South.

Along the coast, the plains were dotted with swamps and marshes. These damp lowlands were ideal for growing rice and sugar cane, which thrived in warm, soggy soil. Indigo was grown on the dry land above the swamps, and tobacco and corn were farmed farther inland. A visitor to this section noted that "the planters, by the richness of the soil, live [in] the most easy and pleasant manner of any people I have met with."

Above the plains rose the Appalachian Mountains. Settlers who ventured into this rugged backcountry carved farms and orchards out of rolling hills and mountain hollows. Some backcountry farmers were said to "work on land so steep that they keep falling out of their cornfields."

Although most people in the South were farmers, southerners used natural resources in other ways as well. In North Carolina, they harvested thick pine forests for lumber. From Chesapeake Bay in Virginia and Maryland, they gathered fish, oysters, and crabs.

An especially important feature of the South was its broad, flat rivers. Many of the South's earliest towns were built at the mouths of rivers. As people moved away from the coast, they followed the rivers inland, building their homes and farms alongside these water highways. Oceangoing ships could even sail up southern rivers to conduct business right at a planter's private dock. Here, the ships were loaded with tobacco or other cash crops for sale in the Caribbean or Europe.

This photograph shows a southern waterway. What geographic features can you identify?
13.4 Economy of the South

The South’s economy was based on agriculture, and southerners were proud of it. Said one Alabama politician, “We want no manufactures; we desire no trading, no mechanical or manufacturing classes. As long as we have our rice, our tobacco, and our cotton, we can command wealth to purchase all we want.”

Although most white southerners worked their own small farms, plantation owners used slaves to grow such cash crops as tobacco, rice, sugar cane, and indigo. By the early 1790s, however, the use of slaves had begun to decline. Europeans were unwilling to pay high prices for tobacco and rice, which they could purchase more cheaply from other British colonies. Cotton was a promising crop, but growers who experimented with it had a hard time making a profit. Until some way was found to clean the seeds out of its fiber easily, cotton was of little value. Discouraged planters were buying fewer slaves, and even letting some go free.

In 1793, a young Yale graduate named Eli Whitney took a job tutoring children on a Georgia plantation. There he saw his first cotton boll. Observing the way cotton was cleaned by hand, Whitney had an idea. “If a machine could be invented that would clean the cotton with expedition [speed],” he wrote his father, “it would be a great thing...to the country.”

Whitney set to work. Six months later, he had a working machine that would change the face of the South.

**King Cotton** Whitney’s “cotton engine,” called the cotton gin for short, was a simple machine that used rotating combs to separate cotton fiber from its seeds. Using a cotton gin, a single worker could clean as much cotton as 50 laborers working by hand.

Across the South, planters began growing cotton. Within ten years, cotton was the South’s most important crop. By 1860, sales of cotton overseas earned more money than all other U.S. exports combined. It was little wonder that many southerners liked to boast, “Cotton is King.”

**Expanding Demand for Land and Slaves** Raising cotton in the same fields year after year soon wore out the soil. In search of fresh, fertile soil, cotton planters pushed west. By 1850, cotton plantations stretched from the Atlantic Coast to Texas.

Whitney had hoped that his invention would lighten the work of slaves. Instead, it made slavery more important than ever to the South. As cotton spread westward, slavery followed. Between 1790 and 1850, the number of slaves in the South rose from 500,000 to more than 3 million.
With white southerners putting all their money into land and slaves, they had little interest in building factories. As a result, wrote an Alabama newspaper, "We purchase all our luxuries and necessities from the North... the slaveholder dresses in Northern goods, rides in a Northern saddle, sports his Northern carriage, reads Northern books. In Northern vessels his products are carried to market."

One successful southern factory was the Tredegar Iron Works in Richmond, Virginia. Using mostly slave labor, the factory made ammunition and weapons for the U.S. army, as well as steam engines, rails, and locomotives. But the vast majority of white southerners made their living off the land.

13.5 Economy of the North

If cotton was king in the South, inventiveness seemed to rule the North. One French visitor commented, "In Massachusetts and Connecticut, there is not a laborer who has not invented a machine or a tool."

In colonial times, Americans created everything they needed—every shirt or gun—by hand. Beginning in the late 1700s, however, inventors started to devise machines to make products more quickly and cheaply. This shift from hand manufacturing to machines is called the Industrial Revolution.

Industrial Revolution: The dramatic change in economies brought about by the use of machines to do work formerly done by hand. The Industrial Revolution began in England in the late 1700s and spread to America and the rest of Europe.

The fast-flowing rivers found in the North provided the power source for early textile mills such as the one in the background of this painting.
Factories, such as the one shown above, produced more goods and made them more affordable. However, they also put many skilled craftspeople out of work.

The Growth of Industry  In 1810, Francis Cabot Lowell, a failing businessman from Boston, visited England. There he saw how mill owners were using machines to spin cotton into thread and weave the threads into cloth. To power these devices, they used fast-moving streams to turn a wheel, which in turn supplied energy to the machinery.

Lowell memorized the design of the British machines. When he returned to Massachusetts, he built even better ones. By 1815, he and his partners had built the first American textile factory, along the Merrimack River. This factory combined spinning and weaving machinery in the same building. One observer marveled that Lowell's mill "took your bale of cotton in at one end and gave out yards of cloth at the other, after goodness knows what digestive process."

To run his machinery, Lowell hired young farmwomen, who jumped at the chance to earn cash wages. The "Lowell girls" toiled 12 to 15 hours each day, with only Sundays off. Soon textile mills were springing up all along other northern rivers.

By the 1830s, inventors had learned to use steam engines to power machinery. With steam engines, businesspeople could build factories anywhere, not just along rivers. Meanwhile, the inventive Eli Whitney showed manufacturers how they could assemble products even more cheaply by making them from identical, interchangeable parts.

New inventions and manufacturing methods made goods cheaper and more plentiful. But they also shifted work from skilled craftspeople to less skilled laborers. When Elias Howe developed the sewing machine, for example, skilled seamstresses could not compete. Some took jobs in garment factories, but they earned much less money working the sewing machines than they had sewing by hand.
Although factory workers were free to quit their jobs, they had little say in their working conditions. One mill manager said, “I regard people just as I regard my machinery. So long as they can do my work for what I choose to pay them, I keep them, getting out of them all I can.” To some southerners, working under such conditions seemed worse than slavery.

**Machines Make Agriculture More Efficient**  The Industrial Revolution changed northern agriculture as well. In 1831, Virginia farmer Cyrus McCormick built a working model of “a right smart” machine called a reaper. A reaper could cut 28 times more grain than a single man using a scythe (a hand tool with a long, curved blade).

In 1847, McCormick built a reaper factory in Chicago. Using interchangeable parts, he was soon producing several thousand reapers a year. By making it easier to harvest large quantities of wheat, inventions like the reaper helped transform the Central Plains into America’s “bread basket.”

Thanks to the Industrial Revolution, the northern economy grew rapidly after 1800. By 1860, the value of manufacturing in the North was ten times greater than in the South.
Inventions of the Industrial Revolution

1. Three causes of the Industrial Revolution were:

   ➔ War of 1812 encourages Americans to

   ➔ British ideas of a factory spread to

   ➔ Eli Whitney invents

2. Three results of the Industrial Revolution were:

   ➔ Goods became __________________________ instead of man made.

   ➔ Economy changes from _______________ to manufacturing.

   ➔ People move from _______________ to _______________.

3. Samuel Slater _________________________ the design of a machine factory in
________________________ and brought it to the United States.

4. Spinning Jenny
Invented by _________________________ in 1764.

It allowed


5. Cotton Gin
Invented by _________________________ in 1793.


6. **Interchangeable Parts**

Invented by ______________________ in early 1800's.


7. **Power Loom**

Invented by ______________________ in 1785.


8. **Factory System**

Brought ______________________ and ______________________ together to make goods. It helped to create ______________________


What invention do you think had the most significant impact on the Industrial Revolution? Justify (explain) your answer.
For Sale

Imagine that you own thousands of acres of wilderness in Mississippi in the 1840s. Create an advertisement to attract planters to buy your land. Review the information on pages 388 to 390 concerning the cotton boom before you begin. You may want to use that information to create your advertisement. Your advertisement must be colorful, historically accurate, and visually appealing.
What new modes of transportation helped people travel west?

1. Which people/companies developed this mode of transportation?
2. Which people/railways used this mode of transportation?
3. What difficulties did people face before this mode of transportation was developed?
4. How were routes west improved by this mode of transportation?

<table>
<thead>
<tr>
<th>Pages</th>
<th>Section</th>
<th>Pages</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>307</td>
<td>Steam Transport</td>
<td>304</td>
<td>Better Roads</td>
</tr>
<tr>
<td>307</td>
<td></td>
<td>310</td>
<td></td>
</tr>
</tbody>
</table>

Key below to find the pages. Your group will be assigned one new mode of transportation that helped people travel west. Read the pages that describe this mode of transportation. Use the information on your web.
The Erie Canal

I've got a mule and her name is Sal
Fifteen miles on the Erie Canal
She's a good old worker and a good old pal
Fifteen miles on the Erie Canal

We haul'd some barges in our day
Filled with lumber, coal, and hay
We know every inch of the way
From Albany to Buffalo

Low bridge, everybody down
Low bridge, yeah we're coming to a town
And you'll always know your neighbor
And you'll always know your pal
If ya ever navigated on the Erie Canal

We'd better look around for a job, old gal
Fifteen miles on the Erie Canal
You can bet your life I'll never part with Sal
Fifteen miles on the Erie Canal

Get up mule, here comes a lock
We'll make Rome 'bout six o'clock
One more trip and back we'll go
Right back home to Buffalo

Low bridge, everybody down
Low bridge, we're coming to a town
You'll always know your neighbor
And you'll always know your pal
If ya ever navigated on the Erie Canal

Where would I be if I lost my pal
Fifteen miles on the Erie Canal
I'd like to see a mule good as my Sal
Fifteen miles on the Erie Canal

A friend of mine once got her sore
Now he's got a broken jaw
'Cause she let fly with an iron toe
And kicked him back to Buffalo

Low bridge, everybody down
Low bridge 'cause we're coming to a town
You'll always know your neighbor
And you'll always know your pal
If ya ever navigated on the Erie Canal

Low bridge, we're coming to a town
You'll always know your neighbor
And you'll always know your pal
If ya ever made a livin' on the Erie Canal

Low bridge, everybody down
Low bridge, we're coming to a town
You'll always know your neighbor
And you'll always know your pal
If ya ever navigated on the Erie Canal

Low bridge, everybody down
Low bridge, we're coming to a town
Hooo...

Write down one thing you know about the Erie Canal.

Have you ever been to the Erie Canal?
If so, what does it look like?

Have you ever heard this song before? If so, when?

Which bodies of water does the Erie Canal connect?

How did the Erie Canal improve transportation?

Why was the Erie Canal important to Syracuse?
I. Base your answers to questions 1-3 on the song below and on your knowledge of social studies.

The Erie Canal

1. What products were shipped on the canal?

2. In what state was the Erie Canal located?

3. State two reasons why cities grew along the Erie Canal.
Constructed Response Question
Early Industrialization: Textile Mills

I. Base your answers to questions 1-3 on the picture below and on your knowledge of social studies.

This picture shows two female weavers in a textile mill in the experimental factory town of Lowell in the 1830s or 1840s.

1. What are the women doing in the picture?

2. What are textiles and what raw materials go into making them?

3. What are some dangers that faced women who worked in these textile mills?
Summary: The Industrial Revolution

The Industrial Revolution Begins
The Industrial Revolution began with textile machines. These machines turned cotton into yarn. In 1793, Eli Whitney invented the cotton gin, a machine that cleaned cotton quickly. Cotton became America's biggest export. Then the government hired Whitney to make thousands of guns. At that time guns were made by hand. Whitney thought of a way to make them quickly and cheaply. He used interchangeable parts and mass production. Soon factories began using his ideas. The nation's productivity increased.

Machines Bring Change
Entrepreneurs used machines to change how people worked. Francis Lowell built a mill that turned cotton into cloth. Soon other factories opened. New inventions, like reapers and steel plows, made farm work easier and faster. Before the Industrial Revolution, people worked on farms or in workshops. Now many people worked in factories.

Changes in Transportation
In the 1800s, dirt roads could not be used in bad weather. The government built a paved road from Maryland to Ohio. People built towns and opened businesses to sell goods. Robert Fulton invented a steamboat that could travel without wind or currents. Soon there were many steamboats. In 1825, the Erie Canal opened. This canal made it easier to ship goods between Lake Erie and the Hudson River. Many canals were built. Rivers and canals became the fastest and cheapest way to ship goods.

Steam locomotive trains were even faster than steamboats. Trips that took 32 hours by steamboat took only 10 hours by train. Soon the United States had thousands of miles of railroad track. Factories and farmers sent their goods faster to places all over the country.
You will be creating a "mind map" about the Industrial Revolution. A mind map is a combination of pictures and words that represent key concepts or ideas from the unit. Look at the list of concepts and follow the directions below to successfully complete your mind map.

Industrial Revolution Key Concepts
- Inventions
- Factory Life
- Lowell Girls
- Farm Life
- City Life
- Land travel (railroads/roads)
- Eric Canal
- Child Labor

MIND MAP Directions
1. Each Key Concept should be shown in its own box.
2. Each Key Concept must have two small pictures or drawings.
3. Inside each Key Concept box, you should include at least 3 bulleted facts explaining and identifying the concept.
4. The Mind Map should have the title (INDUSTRIAL REVOLUTION) in the middle of the paper (Web Diagram).
5. You must use up the entire paper (no blank space).
6. Your name should be in the bottom RIGHT hand corner of the mind map
7. Your mind map should be neat, organized, and show great effort.
Mind Map Rubric

Each Key Concept is shown in its own box (4 points)

Each Key Concept has AT LEAST two small quality pictures or drawings (16 points)

3 bulleted facts included for EACH concept. (33 points)

The title (INDUSTRIAL REVOLUTION) is in the middle of the paper. (10 points)

Mind Map covers the entire paper. No blank space (10 points)

Your name written in the bottom RIGHT hand corner of the mind map. (2 points)

Mind Map is neat, organized, and a reflection of great effort. (20 points)
Industrial Revolution Postcard Project

1. Create a postcard from the perspective of someone living in a city and working in a factory during the Industrial Revolution to someone who is still living and working on a farm. Your postcard must illustrate how Americans lives changed because of the Industrial Revolution.
2. Follow the model below.

Greetings from ___________...
(heading 2 points)

(Draw 3 pictures that show how American life changed because of the Industrial Revolution - each picture is worth 2 points)

Front of postcard: 8 points

Date ___________ (make sure the date is historically accurate - 2 points)
Dear _______________,

(Address your postcard – make sure it is historically accurate - 2 points)

(Write a short summary of how your life has changed since you moved to the city and started working in the factory. Make sure you demonstrate your understanding of how American lives changed because of the Industrial Revolution - 4 points)

Sincerely,
John Q Student

Back of Postcard: 8 points

Total Points: ____/16
INDUSTRIAL REVOLUTION

- British inventors began to make _______________ with _______________.
- A British textile worker, Samuel Slater, set up a textile _______________ in Rhode Island in 1790.
- This was the beginning of the ____________________________ in the U.S.!
- The first Industrial Revolution began in _______________________ in the late 18th century.
- An industrial revolution is when _______________________ are replaced by factory _____________________, and farming is replaced by large-scale manufacturing.
- An example is the making of clothes.

**Spinning Jenny and Power Loom**

- Before the Industrial Revolution, clothes were made at home.
- Afterwards, clothes were made by machines in factories.
- Often these machines were run by ____________________.

**Factory System**

- The factory system had many workers under one roof working at machines.
- Many people left _____________________ and moved to the _____________________ to work in factories. They wanted the money that factories paid.
- This change was not always for the better.

**Factories Come to New England**

- New England was a good place to have a factory.
- Factories needed _____________________ power, and New England had many fast-moving _____________________.

**The Lowell Mills Hire Women**

- In 1813, Francis Cabot Lowell built a factory in eastern Massachusetts, near the Concord River.
- The factory spun cotton into yarn and wove the cotton into cloth.
- Something was different about this factory, they hired ________________________.
• The “________________________” lived in company-owned boardinghouses.

• The girls worked over ____________________________ a day in deafening noise.

The Lowell Girls

• Young women came to Lowell in spite of the noise.

• They came for the good wages: between ____________ dollars a week.

• The girls usually only worked for a few years until they married.

Less Dependency on Europe

As a result, the U.S. no longer had to buy finished textile products from ____________________________ !

Interchangeable Parts

• The first use of interchangeable parts was created by inventor ____________________________

• Before this time, guns were made one at a time. Each gun was different.

• If a part broke, a new part had to be ____________________________.

• Whitney created muskets with ____________ the same parts, so any part would fit any gun.

• The use of ____________________________ parts speeded up production, made repairs easier, and allowed the use of lower-paid, skilled workers.

Factory Workers

• Women were paid ____________ as much as men.

• Working hours were long, and wages were low.

• Ex.) 12-15 hour work days
  • Earnings: men - $_____ per week
  • women - $_____ per week
  • children - $_____ per week

• Cities developed as farmers and immigrants took available factory jobs.
Canals

- _________________ waterways were constructed all over the Northeast to get goods to west and east.
- One canal that was built between the years 1817-1825 was the ________________ Canal.

New York and Canals

- The Erie Canal ("Clinton's Big Ditch") opened on October 26, 1825,
- 363 miles long, forty feet wide, four feet deep, 18 aqueducts and 83 locks,
- shortened travel time form the east coast to the gateway to the west (the Great Lakes) by half and reduced shipping costs by ____________%.
- only trade route west of the Appalachians,
- prompted the first great westward migration of American settlers,
- turned ___________________________ NY into the nation's first boom town and made New York City the busiest port in the United States.

Steamboat

- Robert Fulton designed a ____________________________ for a steamboat that could move against the current of a river or against the wind.
- The steamboat created more opportunities for trade and transportation on rivers.

Telegraph

- The telegraph was invented by Samuel ____________________________.
- This machine sent long and short pulses of electricity along a wire.
- With the telegraph, it took only seconds to communicate with another city.
- The invention of the ____________________________ and ____________________________ brought the people of the nation closer to each other.

John Deere and the Plow

- In 1836, John Deere invented a lightweight __________________ with a steel cutting edge.
- Deere’s plow made preparing the ground for planting much less work.
Cyrus McCormick Reaper

- Cyrus McCormick invented a reaper, cut grain from the fields.
- This allowed farmers to plant much more seed because they could harvest it easier.

The Threshing Machine

- The ______________________ machine separated the kernels of wheat from the husks, which was a far faster way of getting wheat than picking it by hand.
- The threshing machine increased the growing of wheat.

The Cotton Gin

- Inventor Eli Whitney also invented the _______________________.
- The gin took the ______________________ out of the cotton, which was much faster than doing it by hand.
- The cotton gin also greatly expanded the need for _________________.

New Technologies Help the Nation Grow

- With new farm equipment, Midwestern farmers grew food to feed Northeastern factory workers.
- Midwestern farmers became a market for Northeastern manufactured goods.
- The growth of the textile factories increased the demand for Southern _________________.
- This led to the expansion of _______________________.