## **Detect Changing Patterns**

Follow these steps to learn to identify causes of change in a society.

**INTERACTIVE Identify Trends** 

- Gather information about the society. Look at different resources to learn about life in the society you are studying. What resources could help you find information about why and how United States society changed during the period 1820-1860?
- Identify possible sources of change in the society. Sources of change can be economic, political, social, or cultural.
  - a. What was the most revolutionary change during this period?
  - **b.** Were there other sources of change linked to that major change—in other words, effects that themselves became agents of change?

- Determine how the sources of change led to new patterns of living. What do the "before and after" images below tell you about a new pattern of living that resulted from the major change that you have identified?
- Summarize what you discover. Use the information you have learned in order to make a general statement. What can you say about the effects on society of this major change?

### **Secondary Source**



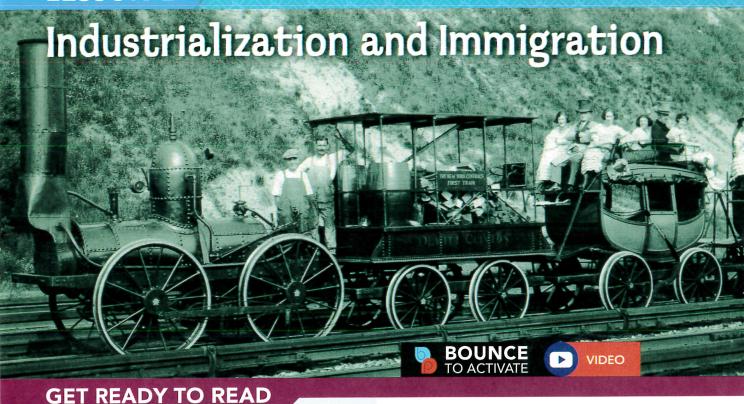
▲ The loom was an important tool used by the women and other family members who produced yarn and cloth at home for textile merchants.

### **Secondary Source**



▲ Young women (often helped by children) operated complex machinery to produce yarn and cloth at a factory for the textile industry.

## **LESSON 2**



START UP

Look at the photograph. What do you think Americans' reactions were to the first trains?

#### **GUIDING QUESTIONS**

- How did the use of steam power affect the Industrial Revolution?
- What was family life like in the growing cities?
- What was the impact of the Industrial Revolution on working conditions and social class?

#### TAKE NOTES

#### Literacy Skills: Identify Main Ideas

Use the graphic organizer in your <a>[</a> Active Journal to take notes as you read the lesson.

#### PRACTICE VOCABULARY

Use the vocabulary activity in your / Active Journal to practice the vocabulary words.

Vocabulary		Academic
artisan	nativist	Vocabulary
trade union	Know-Nothing Party	organize immigrant
strike	discrimination	
famine		

Where early industry had been powered by water, the Industrial Revolution went farther when it harnessed steam. Factory efficiency increased, and with improvements to locomotive technology, markets continued to expand.

## What Changes Did the Age of **Steam Power Bring?**

At first, railroads were used to provide transportation to canals. Horses or mules pulled cars along wooden rails covered with strips of iron. Then, in 1829, an English family developed a steam-powered locomotive engine to pull rail cars. The engine, called the Rocket, barreled along at 30 miles per hour.

**Early Difficulties** Not all Americans welcomed the new railroads. Workers who moved freight on horse-drawn wagons feared that they would lose their jobs. People who had invested in canals worried that competition from the railroads might cause them to lose their investments.

There were problems with the early railroads. They were not always safe or reliable. Soft roadbeds and weak bridges often led to accidents. Locomotives often broke down. Even when they worked, their smokestacks belched thick black smoke and hot embers. The embers sometimes burned holes in passengers' clothing or set nearby buildings on fire.

Part of the problem was the way in which railroads were built. Often, instead of two tracks being laid—one for each direction—only one was set. Signals to control traffic on a single track did not yet exist. This increased the likelihood of a collision.

Another problem with early railroads was that there was no standard gauge, or distance between the rails. As a result, different railroads often used different gauges. To transfer from one railroad line to another, people and goods had to be moved off one train and then loaded onto another.

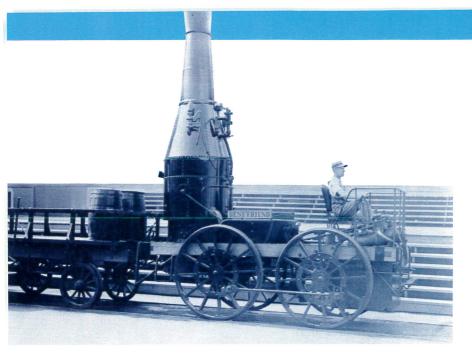
A Network of Railroads Gradually, railroad builders overcame problems and removed obstacles. Engineers learned to build sturdier bridges and solid roadbeds. They replaced wooden rails with iron rails. Railroads developed signaling systems and agreed on a standard gauge. Such improvements made railroad travel safer and faster.

By the 1850s, the American landscape had changed. A network of railroads crisscrossed the nation. The major lines were concentrated in the North and West. New York, Chicago, and Cincinnati became major rail centers. The South, less reliant on industry, had much less track than the North.

### **GEOGRAPHY SKILLS**

This map shows the explosive growth of railroads between 1850 and 1860. Region In which region were the most new rail lines? Infer What does the increase in rail service tell you about the population of that region?





#### Analyze Images

Introduced in 1830, the "Best Friend of Charleston," lifted the city's economy by connecting the ports, canals, and inland markets.

Draw Conclusions How could a train, even a small one, make a huge difference in a city?

Railroads played an important role in urban growth. Cities with good rail connections attracted factories and other businesses. Railroads also made it possible for people to migrate more easily to new cities, increasing urban populations.

#### What Were Yankee

**Clippers?** Railroads increased commercial development in the United States. At the same time, trade with other nations also increased. At seaports in the Northeast, captains loaded their ships, the famed Yankee

clippers, with cotton, fur, wheat, lumber, and tobacco. Then they set sail for other parts of the world.

Speed was the key to successful trade at sea. In 1845, an American named John Griffiths launched the *Rainbow*, the first of the clipper ships. These sleek vessels had tall masts and huge sails that caught every gust of wind. Their narrow hulls clipped swiftly through the water. These technological innovations traded cargo space for speed, which gave American merchants an advantage.

In the 1840s, American clipper ships broke every speed record. One clipper ship sped from New York to Hong Kong in 81 days, flying past older ships that took many months to reach China. The speed of the clippers helped the United States win a large share of the world's sea trade in the 1840s and 1850s.

The golden age of clipper ships was brief. In the 1850s, Britain launched the first oceangoing iron steamships. These sturdy vessels carried more cargo and traveled even faster than clippers.

What Were the Effects of Technological Developments? In the late 1700s and early 1800s, scientists and inventors had found ways to harness heat, in the form of steam, to power machines. By the 1830s, factories began to use steam power instead of water power. Machines that were driven by steam were powerful and cheap to run. Also, factories that used steam power could be built almost anywhere, not just along the banks of swift-flowing rivers. As a result, American industry expanded rapidly.

At the same time, new machines made it possible to produce more goods at a lower cost. These more affordable goods attracted eager buyers. Families no longer had to make clothing and other goods in their homes. Instead, they could buy factory-made products.

How Did Railroads Advance the Market Revolution? Railroads allowed factory owners to transport large amounts of raw materials and finished goods cheaply and quickly. Also, as railroads stretched across the nation, they linked distant towns with cities and factories.

## INTERACTIVE

The Steam Locomotive

These towns became new markets for factory goods. Railroads greatly increased the size of the American marketplace and fueled even more factory production.

The growth of railroads also affected northern farming. Railroads brought cheap grain and other foods from the West to New England. New England farmers could not compete with this new source of cheap foods. Many left their farms to find new jobs in towns and cities as factory workers, store clerks, and sailors.

**Rising Standards of Living** The early rise of industrialization in the United States under a market economy brought striking economic and social benefits. Mass production lowered prices and raised Americans' purchasing power and standard of living. Wages increased for average workers. Food canned in factories improved peoples' year-round diets.

The use of stoves improved meals and home heating. Factory-made clothing was cheaper than homemade. Great numbers of newspapers and magazines reported regularly about the new inventions and advertised the new products. Along with these changes, though, there were also challenges.

READING CHECK Draw Conclusions What was the principal advantage of steam power over water power?

### **How Did Workers Respond to Challenges?**

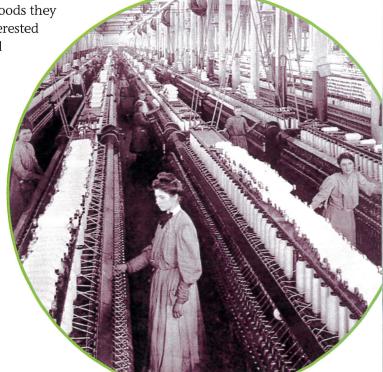
Factories of the 1840s and 1850s differed greatly from the mills of the early 1800s. As industrialization grew, life changed for workers. The factories were larger, and they used steam-powered machines. Laborers worked longer hours for lower wages. Usually, workers and their families lived in dark, dingy houses in the shadow of the factory. Cramped quarters, poverty, and pollution made the lives of many of these families miserable.

Changing Roles The emphasis on mass production changed the way workers felt about their jobs. Before the growth of factories, skilled workers, or artisans, were proud of the goods they made. The factory owner, however, was more interested in how much could be produced than in how well it was made. Workers could not be creative. Furthermore, unlike the artisan who could have his or her own business, the factory worker was not likely to rise to a management position.

**Families in Factories** As the need for workers increased, entire families labored in factories. In some cases, a family agreed to work for one year. If even one family member broke the contract, the entire family might be fired.

The factory day began when a whistle sounded at 4 A.M. The entire family—father, mother, and children—headed off to work.

Analyze Images Workers tend machines in a mill.
Infer How did work like this affect the workers' physical health?



Many factories, at that time, employed young children. The workday did not end until 7:30 P.M., when a final whistle sent the workers home.

Hazards at Work Factory workers faced discomfort and danger. Few factories had windows or heating systems. In summer, the heat and humidity inside the factory were stifling. In winter, the extreme cold contributed to frequent sickness.

Factory machines had no safety devices, and accidents were common. There were no laws regulating factory conditions, and injured workers often lost their jobs.

**Labor Organizations and Strikes** Poor working conditions and low wages led workers to organize into groups to improve their conditions. The first workers to organize were artisans. In the 1820s and 1830s, artisans in each trade united to form **trade unions**. Trade unions were part of a labor reform movement.

The concentration of workers in cities helped the formation of unions by allowing people working in the same industry for different companies to organize together. Their trade unions called for a shorter workday, higher wages, and better working conditions. Sometimes, unions went on strike to gain their demands. In a **strike**, union workers refuse to do their jobs until managers agree to address their concerns.

In the early 1800s, strikes were illegal in many parts of the United States. Strikers faced fines or jail sentences. Employers often fired strike leaders. Employers were politically opposed to workers organizing.

**Progress for Artisans** Slowly, however, the labor reform movement made progress. In 1840, President Van Buren approved a ten-hour workday for government employees. Workers celebrated another victory in 1842 when a Massachusetts court declared that they had the right to strike.

Artisans won better pay because factory

Academic Vocabulary organize • v., to set up or

establish a group, such as a labor union

Analyze Images Women, such as these working in a Massachusetts factory, received low pay although they worked long hours. **Identify Cause and Effect** Why would workers go out on strike?



owners needed their skills. Unskilled workers, however, were unable to bargain for better wages since their jobs required little or no training. Because these workers were easy to replace, employers did not listen to their demands.

During the Industrial Revolution, a new awareness of class differences began to emerge. As a farming people, Americans had long viewed labor with deep respect. The changing conditions of factory labor and the gaps between the wages of unskilled workers, managers, and business owners led to a sense of people grouped in classes with shared interests. The interests of these classes were often different. By bringing together workers and managers in the same factories

and cities, urbanization led to a rise in conflicts resulting from differences in social class.

Women Organize The success of trade unions encouraged other workers to **organize**. Workers in New England textile mills were especially eager to protest cuts in wages and unfair work rules. Many of these workers were women.

Women workers faced special problems. First, they had always earned less money than men did. Second, most union leaders did not want women in their ranks. Like many people at the time, they

believed that women should not work outside the home. In fact, the goal of many unions was to raise men's wages so that their wives could leave their factory jobs.

Despite these problems, women workers organized. They staged several strikes at Lowell, Massachusetts, in the 1830s. In the 1840s, Sarah Bagley organized the Lowell Female Labor Reform Association. The group petitioned the state legislature for a 10-hour workday.

READING CHECK Draw Conclusions Why could artisans command higher wages while other workers could not?

### **How Did Ethnic Minorities Fare** in the North?

By the late 1840s, many factory workers in the North were **immigrants**. An immigrant is a person who enters a new country in order to settle there. In the 1840s and 1850s, about 4 million immigrants arrived in the United States. They were attracted, in large part, by the opportunities for farming the land or working in the cities. Economic opportunity, then, was a key "pull" factor—it pulled immigrants into the country. Among the new arrivals were immigrants from Britain who came to earn higher wages. There was a greater demand in the United States for skilled machinists, carpenters, and miners.

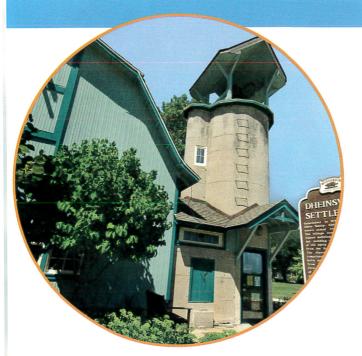
**From Ireland and Germany** In Ireland in the 1840s, a disease destroyed the harvest of potatoes, which were the main food of the poor people. Other crops, such as wheat and oats, were not affected. At the time, Ireland was under British rule and most Irish crops were exported to England. When a large part of the potato crop was lost to disease, British landowners continued to ship the wheat and oats to England. There was little left for the Irish to eat. This situation caused a **famine**, or severe food shortage. Thousands of people died of starvation.



Analyze Images Starving Irish people ransack a government potato store in 1845, during the potato famine. Identify Cause and Effect How did the failure of potato crops in Ireland affect immigration to the United States?

#### Academic Vocabulary

immigrant • n., a person who enters another country in order to settle there



Analyze Images Many German immigrants settled in the Midwest, including this Wisconsin town, which features a German heritage historic site. Infer How would the arrival of immigrants change these communities?

Nearly as many died from disease. This disaster became known as the "Great Irish Famine." Between 1845 and 1860, over 1.5 million Irish fled to the United States seeking freedom from hunger and British rule. Famine, then, was a "push" factor—it pushed the Irish to leave their country.

Meanwhile, many Germans were also arriving in the United States. Harsh weather conditions from 1829 to 1830 resulted in severe food shortages in Germany. By 1832, more than 10,000 Germans were coming to the United States every year, seeking fertile land to farm and a better life. In 1848, revolutions had broken out in several parts of Germany. The rebels fought for democratic reforms. When the revolts failed, thousands had to flee. Attracted by its democratic political system, many came to the United States.

Many other German immigrants came simply to make a better life for themselves. Between 1848 and 1860, nearly one million Germans arrived in the United States.

**Immigrants Enrich the Nation** Immigrants supplied much of the labor that helped the nation's economy grow. Although most of the Irish immigrants had been farmers, few had money to buy farmland. Many settled in the northern cities where low-paying factory jobs were available. Other Irish workers transformed the environment by helping to build many new canals and railroads. Irish women often worked as servants in private homes.

Immigrants from Germany often had enough money to move west and buy good farmland. These immigrants transformed the environment by turning prairie into farmland. Others were artisans and merchants. Cities of the Midwest such as St. Louis, Milwaukee, and Cincinnati had German grocers, butchers, and bakers.

A small minority of the immigrants from Germany were Jewish. German Jews began immigrating to the United States in the 1820s. By the early 1860s, there were about 150 communities in the United States with substantial Jewish populations.

READING CHECK Compare and Contrast In what ways were Irish and German immigrants alike? Different?

### **A Reaction Against Immigrants**

Not everyone welcomed the flood of immigrants. One group of Americans, called **nativists**, wanted to preserve the country for nativeborn, white citizens. Using the slogan "Americans must rule America," they called for laws to limit immigration. They also wanted to keep immigrants from voting until they had lived in the United States for 21 years. At the time, newcomers could vote after only 5 years in the country.

# Did you know?

German Americans are the largest single ethnic group in the United States.

Some nativists protested that newcomers "stole" jobs from native-born Americans because they worked for lower pay. Furthermore, when workers went out on strike, factory owners often hired immigrant workers to replace them. Many distrusted the different languages, customs, and dress of the immigrants. Others blamed immigrants for the rise in crime in the growing cities. Still others mistrusted Irish newcomers because many of them were Catholics. Until the 1840s, most immigrants from Europe had been Protestants. As American cities attracted Catholic immigrants, these cities became centers of conflicts over religion.

By the 1850s, hostility to immigrants was so strong that nativists formed a new political party. Members of the party were anti-Catholic and anti-immigrant. Many meetings and rituals of the party were kept secret. It was called the **Know-Nothing Party** because members answered, "I know nothing," when asked about the party. The message of the party did gain supporters, but its support was limited to the North, where most immigrants settled. In 1856, Millard Fillmore, the Know-Nothing candidate for President, won 21 percent of the popular vote. Soon after, however, the party died out.

READING CHECK Infer Why do you think the members of the Know-Nothing Party answered as they did?

#### **African Americans Face Discrimination**

During the nation's early years, slavery was legal in the North. By the early 1800s, however, all of the northern states had passed laws to bring an end to slavery. In some states, only the children of slaves gained freedom at first. Many did not completely abolish slavery until the mid-1800s. Still, thousands of free African Americans lived in the North, and their number grew steadily during the early 1800s.

Free African Americans in the North faced discrimination. **Discrimination** is a policy or an attitude that denies equal rights to certain groups of people. As one writer pointed out, African Americans were denied "the ballot-box, the jury box, the halls of the legislature, the army, the public lands, the school, and the church."

Even skilled African Americans had trouble finding good jobs. One African American woodworker was turned away by every furniture maker in Cincinnati. At last, a shop owner hired him. However, when he entered the shop, the other woodworkers dropped their tools. Either he must leave or they would, they declared. Similar experiences occurred throughout the North.

#### Some African Americans Find Success

Despite such obstacles, some northern African Americans achieved notable success in business.

## Did you know?

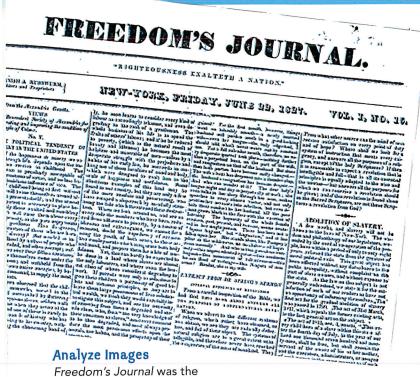
Anti-Irish sentiment ran so high during this time that ads for jobs and housing would state bluntly, "No Irish need apply."

### QUEST CONNECTIONS

Find out how men like William Whipper and John Russwurm were involved in the abolitionist movement. Record your findings in your Active Journal.

Analyze Images Built in 1806, the African Meeting House in Boston is the oldest standing African American church in the United States. Sequence What other developments in the African American community followed the founding of this church?





William Whipper grew wealthy as the owner of a lumberyard in Pennsylvania. Henry Boyd operated a profitable furniture company in Cincinnati.

African Americans made strides in other areas as well. Henry Blair invented farm equipment. In 1845, Macon Allen became the first African American licensed to practice law in the United States. After graduating from Bowdoin College in Maine, John Russwurm edited Freedom's Journal, the first African American newspaper.

In the North, African Americans looked for ways to support one another. They set up schools to educate their youth. In 1852 in Philadelphia, an institute opened to train young

African Americans for skilled jobs. Four years later, in Ohio, Wilberforce University was established. It was the first private university owned and run by African Americans.

The African Methodist Episcopal (AME) Church had purchased the land on which Wilberforce was built. Established in Philadelphia as an independent church in 1816 by Richard Allen, Absalom Jones, and others, the AME Church spread to major cities throughout the Northeast and Midwest. In these cities, the church worked to strengthen the African American community.

READING CHECK Identify Supporting Details Why did skilled African Americans have trouble finding jobs in the North?

## **Lesson Check**

### **Practice Vocabulary**

first newspaper owned by African Americans. Infer

Do you think the editors of

this paper were politically

active? Why or why not?

- 1. Why were artisans the first to organize trade unions and launch strikes?
- 2. Why were the Know-Nothings considered a nativist party?

## Critical Thinking and Writing

- 3. Understand Effects How did the construction of a large railroad network contribute to urban growth?
- 4. Compare and Contrast What "push" factors caused Irish and Germans to leave their homelands for the United States?

- 5. Identify Supporting Details How did schools and churches help strengthen African American communities?
- 6. Writing Workshop: Establish Setting Write a sentence in your 💋 Active Journal that identifies a setting related to the workers described in this lesson. You will use this setting or another appropriate setting in the essay you will write at the end of the Topic.