A New Industrial Revolution

Core Curriculum
- 7.I.B.1a 1865–1900: transportation and its economic effects
- 7.I.B.1b 1865–1900: communication developments
- 7.I.F.4 Technology advanced
- 7.I.H.3 The Grange and state reforms

Reading Skill
Use Greek Word Origins English words may be built on several Greek roots, and each of these may be adapted to modern usage. Thus, once you know the roots of a word, you may need to experiment with different ways to shape an up-to-date word. Use the modern context as your final clue to a word’s modern English meaning.

Key Terms and People
- patent
- Thomas Edison
- Alexander Graham Bell
- Henry Ford
- assembly line
- Wilbur and Orville Wright

Why It Matters You have learned how the Industrial Revolution of the early 1800s changed America. In the late 1800s a new Industrial Revolution transformed life even more. New inventions changed the way Americans worked, traveled, communicated, and played.

Section Focus Question: What conditions spurred the growth of industry?

Why Industry Boomed
As the nation expanded westward, conditions were ripe for industrial growth. Vast deposits of coal, iron, lead, and copper now lay within reach of the miner’s pickax. The towering forests of the Pacific Northwest furnished lumber for building.

Government policy favored industrial growth. Congress gave generous land grants and other subsidies to railroads and other businesses. The government also kept high tariffs on imports. Tariffs helped American industry by making foreign goods more expensive.

Steel and Oil Technology was another factor that spurred industrial growth. In the 1850s, inventors developed the Bessemer process, a method to make stronger steel at a low cost. Steel quickly replaced iron as the basic building material of cities and industry.

Pittsburgh became the nation’s steel-making capital. Nearby coal mines and good transportation helped Pittsburgh steel mills thrive. Other steel mills sprang up across the Midwest.

Steel for Sale
“The price of this Steel is somewhat higher than that of other English brands, but for Tools, Dies, and all purposes when any considerable labor is extended upon it, this steel not only produces the best finished work, but is unquestionably the cheapeast . . .”

—From an 1870 advertisement, A.J. Wilkinson & Co.
Workers near Titusville, Pennsylvania, tapped a new source of energy in 1859. As they drilled into the ground, a stream of dark liquid gushed upward. It was the nation’s first oil strike. The oil industry soon devised methods to 
refine 
 crude oil into lubricants for machines—and, later, into gasoline to power engines and automobiles. Oil was so valuable it became known as “black gold.”

**A Railroad Boom** Railroads fueled industrial growth. Trains carried people and goods to the West and raw materials to eastern factories. Companies improved service by adding sleeping and dining cars and laying down thousands of miles of new tracks.

As more lines were built, railroads sought ways to limit competition and keep prices high. Some big lines consolidated, or combined. They bought up smaller lines or forced them out of business. The Pennsylvania Railroad, for example, consolidated 73 smaller companies. Railroads also gave secret rebates, or discounts, to their best customers. In some places, rival rail lines made agreements to fix rates at a high level.

Such practices helped giant railroads control grain traffic in the West and South. However, high rates angered small farmers, who relied on the railroads to get their goods to market. As a result, many farmers joined the Granger and Populist movements.

**Checkpoint** How did the government support business?

**MAP MASTER**

**Skills Activity**

Resources such as iron, coal, and oil became vital to industry. Iron and coal were especially important resources for the production of steel.

(a) Read a Map Name two areas that had reserves of oil.

(b) Draw Conclusions Based on the map, why do you think Pittsburgh became a center of the steel industry?

MapMaster Online

For: Interactive map
Visit: PHSchool.com
Web Code: myp-6141
Inventors and Inventions

In the late 1800s, enterprising Americans created an astonishing flood of new inventions. In fact, the government issued more patents in 1897 alone than in the ten years before the Civil War! A patent is a document giving someone the sole right to make and sell an invention.

Around the world, the United States became known as a land of invention. Almost every day, it seemed, American inventions made business and life easier.

Edison’s Invention Factory In 1876, Thomas Edison set up a research laboratory in Menlo Park, New Jersey. At this “invention factory,” Edison and other scientists produced the light bulb, the phonograph, the motion picture camera, and hundreds of other useful devices.

Still, such inventions would be worthless without a reliable source of energy. In 1882, Edison opened the nation’s first electrical power plant in New York City. Other power plants soon sprang up all over the country. They supplied the electricity that lit up homes, powered city streetcars, and enabled factories to replace steam engines with safer electric engines. The modern age of electricity had begun.
A Communications Revolution Improved communication was vital to growing American businesses. The telegraph, in use since 1844, helped people stay in touch with one another. But Americans still had to wait weeks for news from Europe to arrive by boat. In 1866, Cyrus Field had an underwater telegraph cable laid across the Atlantic Ocean that sped communications from Europe.

The telegraph used a code of dots and dashes. Alexander Graham Bell wanted to build a device that would carry the human voice. Bell worked for years inventing this device, which he called the telephone. Finally, in 1876, he sent the first telephone message to his assistant in another room: “Mr. Watson, come here. I want you.”

Bell’s patent for the telephone was the most valuable patent ever issued. By 1885, more than 300,000 phones had been sold, most of them to businesses. Instead of going to a telegraph office, people could buy, sell, and get information about prices or supplies simply by picking up the telephone. In time, Bell organized over 100 local companies into the giant American Telephone and Telegraph Company.

Devices for Home and Office Some inventions made office work faster and cheaper. In 1868, Christopher Sholes invented a letter-writing device called the “Type-Writer.” Soon, female typists in offices were churning out letters at 60 words per minute.
The Wright brothers’ design included a propeller, a lightweight gas engine, a rudder, and a set of controls that allowed the pilot to move the plane up, down, left, and right.

Orville had to lie face down, working the controls with his hands and feet.

**Human Flight**

Until the Wright brothers invented the airplane, people had flown only by wind power, in balloons and gliders. The airplane was revolutionary because it powered itself. In addition, the pilot controlled the movement of the plane. This photograph shows the Wright brothers’ first flight on December 17, 1903.

**Critical Thinking: Contrast** Identify two ways that the Wright brothers’ airplane differed from modern airplanes.

Some inventions, such as the camera, affected individuals more than businesses. George Eastman introduced a lightweight camera in 1888. It replaced hundreds of pounds of chemicals and equipment. Because Eastman’s camera sold at a low price, ordinary people could record their lives on film.

African Americans contributed to the flood of inventions. Jan Matzeliger revolutionized the shoe industry with a machine that sewed the tops to the soles. Granville Woods devised a way to send telegraph messages between moving trains.

**Checkpoint** Why was Edison’s power plant important?

**A Transportation Revolution**

Technology also revolutionized transportation. For thousands of years, people had traveled by foot or by horse. Railroads went faster and farther but only where tracks ran.

Then, in the late 1800s, European engineers developed the automobile. Suddenly, people were able to travel almost anywhere and at any time. The development of the automobile ushered in an era of freer and faster transportation.

**Henry Ford** Only 8,000 Americans owned automobiles in 1900. Then, Henry Ford, an American manufacturer, made the automobile available to millions. Ford perfected a system to mass-produce cars and make them available at a lower price.
To speed construction and lower costs, Ford introduced the assembly line in 1913. The assembly line is a manufacturing method in which a product is put together as it moves along a belt. As each car frame moved along the belt, one set of workers hooked up the engine, another attached the wheels, and so on. The assembly line sliced production time in half. Lower costs allowed Ford to charge lower prices. By 1917, more than 4.5 million Americans owned cars.

Cars changed the nation’s landscape. A web of roads spread across the country. Cities began sprawling into the countryside.

The Wright Brothers Another transportation revolution took place in 1903. Wilbur and Orville Wright tested a gas-powered airplane at Kitty Hawk, North Carolina. On its first flight, the plane stayed in the air for 12 seconds and flew 120 feet. Orville made four flights that day. His longest flight lasted 59 seconds.

Surprisingly, the first flights did not attract much interest. No one could see any practical use for a flying machine. The military uses of the airplane did not become clear until World War I (1914–1918). By the 1920s, the airplane had begun to alter the world by making travel quicker and trade easier.

Checkpoint Why did the cost of automobiles decrease?

Looking Back and Ahead Resources and technology set the stage for growth. In the next section, you will see how business leaders built on this foundation to create giant industries.
Out on Strike

“We, the 20,000 textile workers of Lawrence, are out on strike for the right to live...free from overwork and underpay; free from a state of affairs that had become so unbearable and beyond our control, that we were compelled to march...in united resistance against the wrongs and injustice of years and years of wage slavery.”

—Proclamation of the Striking Textile Workers of Lawrence, Massachusetts, 1912

Big Business and Organized Labor

Why It Matters The new Industrial Revolution did not affect all Americans equally. While many business owners earned huge profits, many of their employees endured harsh working conditions and extremely low pay. Today, Americans are still concerned about the gap between rich and poor. We still debate whether or not workers receive a fair share of corporate profits.

❓ Section Focus Question: How did big business change the workplace and give rise to labor unions?

New Ways of Doing Business

Business expansion was led by bold entrepreneurs (ahn treh preh NYOORZ). An entrepreneur is someone who sets up new businesses to make a profit. To raise capital, or money, entrepreneurs adopted new ways of organizing business.

The Corporation Many businesses became corporations, or businesses owned by many investors. Corporations raise large amounts of capital by selling stock, or shares. Stockholders receive a share of the profits and pick directors to run the company.

Corporations limited the risk of investors. Owners of other types of businesses could lose their savings, homes, and other property if the business failed. Stockholders risked only the amount of money they had invested.

Banking Banks lent huge amounts of capital to corporations. These loans helped American industry grow faster than ever before. They also made huge profits for the bankers.

Key Terms and People

entrepreneur trust
corporation free enterprise
monopoly Samuel Gompers
Andrew Carnegie collective
John D. Rockefeller bargaining
One banker, J. Pierpont Morgan, made himself the most powerful force in the American economy. Morgan gained control of key industries, such as railroads and steel. In hard times, Morgan and his friends bought stock in troubled corporations. They then ran the companies in ways that eliminated competition and increased profits.

**Checkpoint**  How did corporations raise capital?

**Growth of Big Business**

As in Jefferson’s time, the government took a laissez-faire approach to business in the late 1800s. Congress rarely made laws to regulate business practices. This atmosphere of freedom encouraged the growth of what came to be known as “big business.” Entrepreneurs formed giant corporations and monopolies. A monopoly is a company that controls most or all business in a particular industry.

**Carnegie** One of the giants of big business was Andrew Carnegie. A poor Scottish immigrant, he worked his way up in the railroad business. He then entered the growing steel industry. Slowly, Carnegie gained control of every step in making steel. His companies owned iron mines, steel mills, railroads, and shipping lines. In 1892, Carnegie combined his businesses into the giant Carnegie Steel Company. It soon produced more steel than all the mills of England.

As a business leader, Carnegie could be ruthless. Still, he believed that the rich had a duty to improve society. He called his philosophy the Gospel of Wealth. Carnegie donated hundreds of millions of dollars to build libraries and support other charities. “I started life as a poor man,” he said, “and I wish to end it that way.” Carnegie set up a foundation that continued to fund worthy causes after his death. Many business leaders followed his example.

**Rockefeller** Another business giant, John D. Rockefeller, also came from humble beginnings. Rockefeller was the son of a peddler in New York. At age 23, he invested in an oil refinery. He used the profits to buy other oil companies. Rockefeller was a brilliant entrepreneur. He also did not hesitate to crush competitors, slashing prices to drive rivals out of business.

In 1882, Rockefeller ended competition in the oil industry by forming the Standard Oil Trust. A trust is a group of corporations run by a single board of directors. Other industries followed his lead. By 1900, trusts dominated many of the nation’s key industries, from meatpacking to sugar refining to the manufacture of copper wire.
Debate Over Trusts

Was big business good or bad for the nation? Americans at the time hotly debated that issue. Today, many historians believe that both views are partly true.

Critics saw trusts as a threat to free enterprise, the system in which privately owned businesses compete freely. They saw leaders like Carnegie and Rockefeller as "robber barons" who unfairly eliminated competition. Critics also pointed out that business leaders used their wealth to influence politicians.

Others saw big business leaders as bold "captains of industry" who built up the economy and created jobs. They argued that limiting costly competition allowed companies to lower prices for their products. As a result, American consumers were able to afford more goods and services.

Social Darwinism

A new philosophy called Social Darwinism also supported the trend toward trusts. Scientist Charles Darwin had said that, in nature, forms of animal and plant life survived if they could adapt to change better than others. Social Darwinism applied this idea of "survival of the fittest" to human affairs.

Big business leaders used Social Darwinism to justify efforts to limit competition. Businesses that drove out their competitors, they said, were "fittest" and deserved to survive. As you will see, Social Darwinism was also used to justify harsh working conditions.

**Checkpoint**

How did Rockefeller control the oil industry?

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**Vocabulary Builder**

*justi (juhs tih fi)* v. to give good reason for an action

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**Use Latin Word Origins**

The Latin word *ducere* can mean "to draw out." Combine this with *pro-,* meaning "forth." Connect these word origins to the modern usage of the word *products.*

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**Trusts and Monopolies: Good or Bad?**

A newspaper editor, quoted below, defends the right of businesses to cooperate in forming trusts and monopolies.

"The right to cooperate is as unquestionable as the right to compete... The trust denies competition only by producing and selling more cheaply than those outside the trust can produce and sell."

—Benjamin R. Tucker, Chicago Conference on Trusts

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**Reading Primary Sources**

**Skills Activity**

By 1900, the question of trusts and monopolies had become one of the most hotly debated issues in the United States.

(a) Interpret Primary Sources According to Tucker, how does the public benefit from trusts?

(b) Detect Points of View How does the view of monopoly expressed in the cartoon differ from Tucker's view?
Changes in the Workplace

Before the Civil War, most factories were small. A boss knew every worker in the shop. As giant industries grew, however, the close relationships between owners and workers ended.

American industry attracted millions of new workers. Most were immigrants or native-born whites. Others were African Americans who left southern farms for northern factories.

Women and Children In some industries, the majority of workers were women. They outnumbered men in the textile mills of New England, the tobacco factories of the South, and the garment sweatshops of New York. A sweatshop is a manufacturing workshop where workers toil long hours under poor conditions for low pay.

Children also worked in industry, often in hazardous jobs. In bottle factories, eight-year-old boys ran with white-hot bottles to cooling racks. Children toiled in textile mills, tobacco factories, coal mines, and garment sweatshops. Most child laborers could not go to school. Therefore, they had little chance of improving their lives.

Dangerous Conditions Factory work could be dangerous. Breathing in fibers or dust all day, textile workers' and miners came down with lung diseases. Steelworkers risked burns and death from vats of molten metal. Employers were not required to pay compensation for injuries suffered on the job. Social Darwinists claimed that such harsh conditions were necessary to cut costs, increase production, and ensure survival of the business.

An accident at a New York sweatshop tragically called attention to the dangers many workers faced. On March 25, 1911, fire broke out in the Triangle Shirtwaist Factory. Within minutes, the upper stories were ablaze. Hundreds of workers raced for the exits only to find them locked. The company had locked the doors to keep workers at their jobs. Panicked workers piled up against the exits.

Firetrucks rushed to the scene, but their ladders were too short to reach the fire. One after another, workers trying to escape the flames leaped to their deaths. Nearly 150 people, most of them young women, died in the Triangle Fire. As a result, New York and other states approved safety laws to help protect factory workers.

✓Checkpoint What dangers did factory workers face?

Workers Organize

Since the early days of the Industrial Revolution, factory workers had made attempts to organize. Most early efforts to form unions failed, however. Companies hired private security guards to attack strikers or union organizers. In addition, laws made it illegal for workers to go on strike. Still, workers continued their attempts to form unions, often in secret. Labor unions sought safer working conditions, higher wages, and shorter hours.
A Violent Strike
Strikes often turned violent. This 1877 picture shows a confrontation between Maryland state militia and workers during a railroad strike. At least 10 strikers were killed. Critical Thinking: Evaluate Information How does this picture suggest that there was violence on both sides?

Knights of Labor In 1869, a group of Philadelphia clothing workers formed a union called the Knights of Labor. At first, the union was small and secret. Then, in 1879, the Knights elected Terence Powderly as president. Powderly rejected the use of strikes as a tool. Instead, he tried to win support by holding public rallies.

Under Powderly, the Knights of Labor admitted women, African Americans, immigrants, and unskilled workers. No earlier labor union had included all workers. For a time, the Knights became the biggest union in the country.

Union successes were undercut by a series of violent labor disputes. One of the worst episodes occurred in Chicago. On May 4, 1886, striking workers rallied in Haymarket Square. Suddenly, a bomb exploded and killed seven policemen. Police sprayed the crowd with bullets. As a result of such violence, public opinion turned against unions. The Knights of Labor, some of whom were at Haymarket Square, lost much of their influence.

Rise of the AFL In 1886, the year of the Haymarket Riot, Samuel Gompers formed a new union in Columbus, Ohio. It was called the American Federation of Labor, or AFL. The AFL soon replaced the Knights of Labor as the leading union in the country.

Unlike the Knights, the AFL admitted skilled workers only. Gompers argued that skilled workers could create a powerful union because their skills made it costly and difficult to train replacements. He also believed that the most effective way to win improvements was through collective bargaining. In collective bargaining, unions negotiate with management for workers as a group. Gompers believed in using strikes, but only if all else failed.

This practical approach worked well. By 1904, the AFL had grown to more than a million members. But because it barred African Americans, immigrants, and unskilled workers, the AFL still included only a tiny fraction of American workers.
Women in the Labor Movement Women played leading roles in building unions. Mary Harris Jones tirelessly traveled the country, campaigning for unions and giving support to striking miners. She called attention to the hard lives of children in textile mills. Because of her work with children, people began calling her Mother Jones.

Bitter Strikes In 1893, the nation was hit by a severe economic depression. Many business owners cut production, fired workers, and slashed wages. A wave of violent strikes swept the country. One of the worst occurred near Chicago. George Pullman, a manufacturer of railroad cars, cut his workers' pay by 25 percent. Still, he refused to lower rents on company-owned housing.

Angry workers struck the Pullman plant. Railroad workers walked off their jobs in support. By July, rail lines were shut down from coast to coast. President Grover Cleveland then sent federal troops to Chicago to end the strike. They were joined by deputies paid by the railroads. Marshals fired on the crowds, killing two protesters.

In such violent labor disputes, the public generally sided with the owners. Most Americans saw striking unions as radical and violent. By 1900, only about 3 percent of American workers belonged to a union.

☑ Checkpoint What methods did the AFL use?

☆ Looking Back and Ahead Big business grew at a rapid pace. Organized labor also grew but faced many obstacles. In the next chapter, you will learn how these trends began to shift.

Comprehension and Critical Thinking
1. (a) Recall What big business tactic did Rockefeller use to eliminate competition?
(b) Compare and Contrast How were trusts viewed as both a threat and an advantage to the free enterprise system?

2. (a) List How did changes in the factory system affect workers in the late 1800s?
(b) Draw Conclusions Why was there an effort to organize workers into labor unions?

Reading Skill
3. Use Latin Word Origins Connect the roots ad-, meaning “out,” and optare, meaning “choose or wish,” to the modern English word adopted as it is used in the following sentence: To raise capital, Americans adopted new ways of organizing business.

Key Terms
4. Draw a table with six rows and two columns. In the first column, list these terms: entrepreneur, corporation, monopoly, trust, free enterprise, collective bargaining. In the next column, write the definition of each word.

Writing
5. Which of the following statements seems the most emotional in its appeal? Which seems the most persuasive? Why?

 Statements:
(a) One cause of the Pullman strike was George Pullman's failure to lower rents on company-owned housing.
(b) One cause of the Pullman strike was George Pullman's unfair treatment of workers.
(c) One cause of the Pullman strike was a conflict between George Pullman and his workers over wages and rent.

Section 2 Big Business and Organized Labor 619
Cities Grow and Change

Why It Matters As the new Industrial Revolution changed the way Americans worked and lived, it also changed where they worked and lived. More and more Americans moved from the rural farmlands to the big cities and the little towns that sprouted all around these cities. This is a trend that still continues today.

Section Focus Question: What were the causes and effects of the rapid growth of cities?

Rapid Growth of Cities

"We cannot all live in cities," wrote journalist Horace Greeley, "yet nearly all seem determined to do so." Greeley was describing the growth of American cities in the late 1800s.

Urbanization The rate of urbanization was astonishing. Urbanization is the rapid growth of city populations. In 1860, only one American in five was a city dweller. By 1890, one in three lived in a city. For the first time, the United States had cities the sizes of London and Paris.

The reason for this rapid urbanization was simple. Cities attracted industry, and industry attracted people. Farmers, immigrants, and African Americans from the South all migrated to cities in search of jobs and excitement.

Many fast-growing cities were located near waterways. New York and San Francisco had excellent ocean harbors. Chicago rose on the shores of Lake Michigan. Cities near waterways drew industry because they provided easy transport for goods.
Growing Out and Up  New technology helped cities grow. Elevated trains carried passengers over crowded streets. In 1887, the first electric streetcar system opened in Richmond, Virginia. Ten years later, the nation’s first electric subway trains began running beneath the streets of Boston.

Public transportation gave rise to suburbs, living areas on the outskirts of a city. People no longer had to live in cities to work in cities. Steel bridges also accelerated suburban growth. The Brooklyn Bridge, completed in 1883, linked the city center in Manhattan to outlying Brooklyn. As a result, New York City was able to spread out to house its growing population.

Cities began to expand upward as well as outward. In 1885, architects in Chicago constructed the first 10-story building. People called it a “skyscraper” because its top seemed to touch the sky. By 1900, steel-framed skyscrapers up to 30 stories high towered over cities. Electric elevators whisked office workers to the upper floors.

As cities grew outward from their old downtown sections, living patterns changed. Many cities took on a similar shape. Poor families crowded into the oldest sections at the city’s center. Middle-class people lived farther out in row houses or new apartment buildings. The rich built fine homes on the outskirts of the city.

✓ Checkpoint  How did technology change city life?

Problems of Urban Life

Rapid urbanization brought many problems. Fire was a constant threat in tightly packed neighborhoods. In 1871, fire engulfed Chicago. Winds blew flames across the city faster than a person could run. The Chicago Fire leveled 3 square miles of downtown, killed 300 people, and left 18,000 homeless.

Vocabulary Builder
accelerate (ək ə srər ət) v.  to increase in speed

Use Latin Word Origins
Use the Latin root urbanus, meaning “city,” to define the word urbanization. Then, name at least one other related word that shows the influence of this root.

Discovery School

Explore More Video
To learn more about the changes in city life, view the video.

A Changing City  Cities underwent great changes in the late 1800s. The photograph shows a Chicago street in 1900. Critical Thinking: Link Past and Present  Describe two ways a picture of this street today might look different.
A Tenement Family
This photograph shows a family in their New York tenement apartment. Critical Thinking: Clarify Problems Based on this photograph and your reading, identify one problem this family might face daily.

Tenement Life In downtown slums, the poor lived in bleak conditions. People crowded into tenements, buildings divided into many tiny apartments. Many apartments had no windows, heat, or indoor plumbing. Often, 10 people might live in a single room. Several families shared a single bathroom.

Slum streets were littered with garbage. Outbreaks of cholera and other diseases were common. Babies ran the greatest risk. In one Chicago slum, half of all babies died before the age of one.

Improving City Life In the 1880s, cities began to improve urban life. They installed streetlights and set up fire, sanitation, and police departments. Public health officials waged war on disease.

Religious groups served the poor. Mother Cabrini, a Catholic nun, set up hospitals and clinics for people who could not afford a doctor. The Salvation Army, founded by a Methodist minister, gave food, clothing, and shelter to the homeless.

Settlement Houses Reformers like Jane Addams worked hard for poor city dwellers. Addams came from a well-to-do family, but she felt strong sympathy for the poor. In 1889, she opened Hull House, a settlement house in the slums of Chicago. A settlement house is a center offering help to the urban poor. Soon, reformers—most of them women—had started settlement houses in other major cities.

At settlement houses, volunteers taught English to immigrants, sponsored music and sports for young people, and provided nurseries for children of working mothers. Addams and other settlement house leaders also pressured state legislatures to outlaw child labor.

✓ Checkpoint  What problems did tenement dwellers face?
The Excitement of City Life

Despite hardships, cities offered attractions that were not available in the country. Newcomers were awed by electric lights that turned night into day, elevated railroads rumbling overhead, and tall buildings that seemed to pierce the clouds.

**Department Stores** Downtown shopping areas attracted hordes of people. People came to buy the goods pouring in from American factories. To meet the needs of shoppers, merchants developed a new type of store, the department store.

Earlier, people had bought shirts in one store, boots in another, and lamps in a third. A department store offered all of these goods in separate sections of the same store. Shoppers could wander from floor to floor, bathed in light from crystal chandeliers. Elegant window displays advertised the goods for sale.

**Leisure Activities** Long hours on the job made people value their free time. This strict division between work and play led to a new interest in leisure. To meet this need, cities provided a wealth of entertainment. Almost every museum, orchestra, art gallery, and theater was located in a city. Circuses drew audiences with elephants, lions, acrobats, and clowns.

In the 1850s, Frederick Law Olmsted planned Central Park in New York. Other cities followed suit. Parks, zoos, and gardens allowed urban dwellers to enjoy green grass and open air.

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### Cause and Effect

**CAUSES**
- Growth of industries in cities attracted workers.
- African Americans from the South and immigrants sought a better life.
- Many cities near waterways attracted industries.
- Technological advances led cities to construct subways, trolleys, streetlights, bridges, and skyscrapers.
- Many leisure activities that cities provided drew people to urban areas.

**EFFECTS**
- Urban transportation systems enabled people to live in one part of the city and work in another.
- Flood of people into cities led to teeming neighborhoods that became slums.
- Improvements in transportation gave rise to suburbs.
Sports  Americans had always enjoyed outdoor games. Not until after the Civil War, however, did professional sports teams begin to spring up in cities. The most popular sport by far was baseball. A guidebook of the time noted:

"Base ball first taught us Americans the value of physical exercise as an important aid . . . in cultivating the mind up to its highest point. It is to the introduction of base ball as a national pastime, in fact, that the growth of athletic sports in general in popularity is largely due."

—Spalding's Official Base Ball Guide, 1869

The first professional team, the Cincinnati Red Stockings, appeared in 1869. Only seven years later, teams from eight cities formed the National League of Professional Baseball Clubs. A game might draw as many as 5,000 fans, loudly rooting for their city's home team. African American players, banned from the majors in the 1880s, formed their own professional baseball league.

In 1891, James Naismith nailed two peach baskets to the walls of a gym in Springfield, Massachusetts. He handed players a soccer ball and challenged them to throw the ball in the basket. The new game, called basketball, became a favorite winter sport. Football was also popular. At the time, the sport was brutal and dangerous. Players wore no helmets. In one season, 44 college players died of injuries.

Checkpoint  What leisure activities did city dwellers enjoy?

Looking Back and Ahead  You have already learned that immigration contributed to the growth of cities. In the next section, you will take a closer look at immigrant life.

Section 3  Check Your Progress

Comprehension and Critical Thinking
1. (a) Describe  Why did cities grow rapidly after the Civil War?
(b) Apply Information  What role did technology play in urbanization? Give at least two examples.

2. (a) Identify  What type of housing did poor city dwellers live in?
(b) Identify Benefits  Why do you think many people wanted to live in cities in spite of harsh conditions?

Reading Skill
3. Use Latin Word Origins  The Latin root urb means "city." How does this influence the meaning of the term suburb? What other word in Section 3 shows the influence of the root urb?

Key Terms
Read each sentence below. If the sentence is true, write YES. If the sentence is not true, write NO and explain why.
4. Urbanization was the result of people moving to western farms.

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5. Tenements were apartments used by the wealthy.
6. Settlement houses provided needed services for city dwellers.

Writing
7. "Life in a city is more rewarding than life outside a city." List two or three arguments in favor of this opinion and two or three arguments opposing this opinion.
Three Things Struck Me

“You see, there were three things that struck me. One was that everyone worked. The factory whistles all over the city blew at seven in the morning, and at six at night . . . Secondly, everybody had to go to school until they were 16 years old. School, education, was compulsory. And third, military service was voluntary.”

—Maxwell Lear, immigrant, describing differences between America and Europe, ca. 1900

Doctor examines immigrant children

The New Immigrants

Why It Matters The industrial age changed the face of cities with new buildings and bridges. It also changed the population. Millions of new immigrants came to America during the late 1800s and early 1900s. While some Americans welcomed the newcomers, others disliked or even feared them. Today, Americans still wrestle with the issue of how to deal with immigration.

Section Focus Question: How was the experience of immigrants both positive and negative?

A Fresh Start

Between 1865 and 1915, some 25 million immigrants entered the United States—more than the population of the entire country in 1850! They were part of a worldwide surge of migration.

Reasons for Migration There were many reasons for this vast migration. In European nations such as Italy, the amount of farmland was shrinking as populations swelled. Machines were replacing farmhands, forcing more people from the land. They looked to the United States as a “land of opportunity” where they could build a better life.

Other immigrants sought religious freedom. In the 1880s, Jews in Russia became targets of government-sponsored pogroms (POH grohmz), or violent attacks against Jews. Armenian Christians faced similar persecution in Turkey.

Political unrest drove many from their native lands. In 1910, a revolution in Mexico pushed tens of thousands of refugees across the Rio Grande.

Jobs also pulled immigrants to the United States. Steamship companies and railroads, which profited from immigration, sent agents to Asia and Europe to advertise cheap land and plentiful jobs. The promise of freedom also drew people from lands without traditions of democracy and liberty.
The New Immigrants  In the early and mid-1800s, most immigrants were Protestants or Catholics from northern and western Europe. Many spoke English and had experience in democracy.

By contrast, most of the “new immigrants” who began to arrive in the late 1800s came from nations of southern and eastern Europe, such as Italy, Poland, Russia, and Greece. Most were Catholic or Jewish. A smaller number came from Asia and the Pacific. Few understood English or had experience living in a democracy or in a city.

Checkpoint  Why did many people leave their homelands?

Starting a New Life  
The decision to emigrate was difficult. It meant leaving home, family, and friends and starting a strange life. (For more on the immigrants’ experiences, see the Life at the Time feature in this chapter.)

Coming to America  The passage by boat was miserable. Immigrants were crammed below decks in steerage, large compartments that usually held cattle. The tight, airless berths were breeding grounds for disease. Rough seas sickened the travelers.

Most people coming from Europe landed in New York. After 1892, they went to the receiving center on Ellis Island. Asian immigrants entered through Angel Island in San Francisco Bay after 1910.
New arrivals faced a rigorous physical examination at the receiving centers. Did they limp? Were their eyes free of disease? Those judged to be disabled or seriously ill might be sent home.

**Immigrant Neighborhoods** Once admitted to the United States, about two thirds of immigrants settled in cities, near other people from the same country. Ethnic neighborhoods helped people feel less isolated in their new homes.

In immigrant neighborhoods, sidewalks rang with the sounds of Italian, Chinese, Yiddish, and other languages. Newcomers celebrated familiar holidays and cooked foods from the old country, such as kielbasa (Polish sausage) and goulash (Hungarian stew). Italians joined social groups such as the Sons of Italy. Greeks read newspapers in Greek. Small storefronts were turned into Jewish synagogues or Buddhist temples.

**Checkpoint** What hardships did immigrants face?

**Becoming American**

Immigrant neighborhoods were springboards to a new life. Organizations called immigrant aid societies helped new arrivals with clothing, housing, and language classes.

**Assimilation** Newcomers often felt caught between the old world and new. Most clung to traditional modes of worship, family life, and community relations. At the same time, they worked hard to assimilate. Assimilation is the process of becoming part of another culture.

Children of immigrants assimilated more rapidly than their parents. Surrounded by English-speakers in school and on the street, they learned the language quickly. They played baseball and dressed like native-born Americans. Immigrant parents felt both pride and pain as they saw their children change.

**Becoming American**

Citizenship classes, like the one shown here, were an important step toward assimilation. **Critical Thinking: Draw Inferences** What subjects do you think students like these might study in citizenship classes?
A Nativist View of Immigration

In this 1891 cartoon, the man in the suit tells Uncle Sam that he can get rid of anarchy, crime, and other ills by restricting immigration. **Critical Thinking: Detect Bias** What details create a negative picture of immigrants?

Still, the fondest dream of many immigrants was to educate their children so that the next generation could be better off. One Russian Jewish immigrant called education "the essence of American opportunity, the treasure that no thief could touch . . . surer, safer than bread or shelter."

**Contributions of Immigrants** The labor of immigrants was essential to the new American economy. Desperate for money, newcomers took whatever jobs they could find. Immigrants worked in steel mills, meatpacking plants, mines, and garment sweatshops. They helped build subways, skyscrapers, and bridges. Chinese, Irish, and Mexican workers laid down hundreds of miles of railroad track in the West.

Through hard work and saving, many immigrants slowly advanced economically. Often, they began by opening small businesses, such as stores or barbershops, to serve their communities. In time, their customers expanded beyond the neighborhood. Outsiders might bring their clothing to Chinese laundries or buy foods they had never tasted before. In this way, ethnic foods such as spaghetti, chow mein, and bagels became part of American life.

Individual immigrants made major contributions. Andrew Carnegie and Alexander Graham Bell were born in Scotland. Samuel Goldwyn and Louis Mayer, Jewish immigrants from Eastern Europe, established the motion picture industry in California. Italian-born Arturo Toscanini became a famous orchestra conductor. Belgian immigrant Leo Baekeland invented the first plastic.

**Checkpoint** How did immigrants assimilate?
A New Wave of Nativism

As in the 1840s, increased immigration led to a wave of nativism. Nativists sought to preserve the United States for native-born American citizens.

Nativists argued that the new immigrants would not assimilate because their languages, religions, and customs were too different. They also charged that immigrants took jobs away from Americans. Nativists associated immigrants with violence, crime, and anarchy. An anarchist is a person who opposes all forms of government.

On the West Coast, nativist feelings against Chinese immigrants ran high. Mobs drove Chinese from mining camps and cities and sometimes killed them. In 1882, Congress passed a law to exclude Chinese laborers from the United States. The Chinese Exclusion Act was the first law limiting immigration based on race. It was finally repealed in 1943.

In 1917, Congress passed a law that denied entry to immigrants who could not read their own languages. Since education at the time was usually restricted to the wealthy, this law barred most of the world’s poor people from immigrating to the United States.

✓ Checkpoint  Why did nativists oppose immigration?

⭐ Looking Back and Ahead  Although immigration slowed after 1917, it never stopped. In the 1960s, Congress finally eased restrictions on immigration.

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Comprehension and Critical Thinking

1. (a) List Why did people immigrate to the United States in the late 1800s?
(b) Frame Questions What five questions could you ask of those immigrants?

2. (a) Describe How did immigrants try to assimilate?
(b) Detect Bias How did nativists feel about the ability of immigrants to assimilate?

Reading Skill
3. Use Other Word Origins The text lists kielbasa and goulash, food items introduced to America by immigrants. The Polish and Hungarian words are used because these foods have no English-word counterparts. On your own or with a partner, name foods from other cultures. Do we use the original name or an English word?

Key Terms
Complete each of the following sentences so that the second part explains the first part and shows your understanding of the term.

4. Many immigrants traveled across the ocean in steerage; _____.
5. Immigrants blended into American life through a process called assimilation; _____.

Writing
6. Imagine that you are writing an editorial in which you object to a bill that excludes immigrants who could not read their own languages. Which of the following arguments is most persuasive? Why? Arguments:
(a) Many native-born American citizens do not know how to read, so the bill uses an unfair standard for immigrants.
(b) Immigrants come to this country for a better life, which includes getting an education.
(c) The bill is being used as a trick to restrict all immigration.
The Finest High School

"Last Monday the dedication exercises of the finest high school building in the world were held... The building contains eighty classrooms, over a dozen laboratories, [and] three gymnasias... What makes the school the greatest in the world, however, is no: the outside appearances, but the interior. Every branch of high learning has a place. Botany, biology, chemistry, drawing, cooking—nothing is left out."

—The New York Times, March 1, 1903, describing opening of a new high school

Education and Culture

Core Curriculum
- 7.H.1D.1b Citizenship: Informed about major issues

Reading Skill
Use Popular Word Origins Some words and phrases do not come from formal languages. Instead, they arise from popular use. For example, in the previous section, you saw that basketball got its name because it was originally played using peach baskets. The term basketball remained even when people stopped using real baskets to play with. Other words and phrases also have origins in popular usage that have since gone out of date.

Key Terms and People
- compulsory education
- Joseph Pulitzer
- yellow journalism
- realist
- Mark Twain

Why It Matters As industry, urbanization, and immigration all expanded, many Americans felt that the nation’s educational system needed to improve. States and local school districts constructed new buildings, hired more teachers, and passed laws requiring more children to attend school. Education expanded, but there was room for more improvement. In fact, we today continue to look for ways to improve the nation’s education system.

Section Focus Question: What were the causes and effects of an expanded educational system?

Educating Americans

Before 1870, fewer than half of American children went to school. Many attended one-room schoolhouses, with all age levels and only one teacher. As industry grew, people realized that the nation needed an educated workforce. As a result, states improved public schools at all levels.

Education Expands In 1852, Massachusetts passed the first compulsory education law. Compulsory education is the requirement that children attend school up to a certain age. Other states in the North, Midwest, and West followed. Most states required a minimum tenth-grade education.

In the South, which had no tradition of public schools, the Freedmen’s Bureau built grade schools for both white and black students. Southern states were more reluctant to pass compulsory education laws than states in the North or West. Still, by 1918, every state required children to attend school.
After the Civil War, many cities and towns built public high schools. By 1900, there were 6,000 high schools in the country. Still, not until 1950 did the majority of Americans of high school age graduate.

Higher education also expanded. New private colleges for both women and men operated. Many states built universities that offered free or low-cost education.

The School Day For elementary school students, the typical school day lasted from 8:00 A.M. to 4:00 P.M. Pupils learned the “three Rs”: reading, writing, and arithmetic.

The most widely used textbooks were McGuffey’s Eclectic Readers. Students memorized and recited lessons that had titles like “Waste Not, Want Not.” Such poems and stories taught not only reading but also moral values and the Christian religion.

Education for Adults Older Americans also got more opportunity to widen their knowledge. Wealthy individuals such as Andrew Carnegie gave money to towns and cities to build public libraries. Libraries offered more than books and magazines. Speakers often gave talks on important topics of the day.

In 1874, a Methodist minister opened a summer school for Bible teachers along Lake Chautauqua (shuh TAWK wuh) in New York. The next year, the camp was opened to the public. Mostly middle-class men and women gathered at Chautauqua to hear lectures on a wide variety of subjects. The Chautauqua Society later began sending out traveling companies on a wide circuit. In time, Chautauquas reached as many as 5 million people in 10,000 towns each year.

**Checkpoint** How did states expand public education?

**High School Enrollment, 1880–1910**

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Students (in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1880</td>
<td>250</td>
</tr>
<tr>
<td>1890</td>
<td>500</td>
</tr>
<tr>
<td>1900</td>
<td>750</td>
</tr>
<tr>
<td>1910</td>
<td>1,500</td>
</tr>
</tbody>
</table>

*Source: Historical Statistics of the United States*

**Reading Charts Skills Activity**

The late 1800s saw a dramatic rise in public high school enrollment.

(a) Read a Chart How many Americans attended public high schools in 1880? In 1910?

(b) Distinguish Relevant Information Which of the following might help you understand the reasons for the trend shown on the graph: a mathematics textbook from 1890; a list showing when states passed compulsory education laws; a population graph? Explain.
New American Writers

As learning became available to more people, Americans began to read more books and magazines. Many bestsellers were dime novels, low-priced paperbacks that often told thrilling tales of the "Wild West." One popular writer, Horatio Alger, wrote "rags-to-riches" stories about poor boys who became successful through hard work, courage, and honesty.

Realism  Other American writers were realists, writers who try to show life as it is. They often emphasized the harsh side. Some, such as Stephen Crane, had been newspaper reporters. Crane depicted the hardships of slum life in his novel Maggie: A Girl of the Streets.

California-born Jack London wrote of miners and sailors who risked their lives in backbreaking jobs. Kate Chopin shocked readers with The Awakening, a novel about an unhappily married woman. The poems of Paul Laurence Dunbar described the joys and sorrows of black life. He was the first African American to earn a living as a writer.

Mark Twain  The most popular author of the time was Mark Twain, the pen name of Samuel Clemens. Twain made his stories realistic by capturing the speech patterns of southerners who lived and worked along the Mississippi River.

Twain set his novel Huckleberry Finn in the days before the Civil War. Huck, an uneducated boy, and Jim, an escaped slave, raft down the Mississippi River together. Though brought up to believe slavery is right, Huck comes to respect Jim and decides to help him win his freedom.

Some parents complained that Huck was a crude character who would have a bad effect on children. But today, many critics consider Huckleberry Finn to be one of the greatest American novels.
A Newspaper Boom

The number of American newspapers grew dramatically in the late 1800s. By 1900, half the newspapers in the world were printed in the United States.

Causes The spread of education was one reason for the growth of the newspaper industry. As more Americans could read, they bought more newspapers and magazines.

The newspaper boom was also linked to urbanization. In towns and villages, neighbors could share news face to face. In cities, people needed newspapers to stay informed.

A New Kind of Newspaper A Hungarian immigrant, Joseph Pulitzer, created the first modern, mass-circulation newspaper. In 1883, Pulitzer bought the New York World. He immediately cut the price so that more people could afford it.

Pulitzer added crowd-pleasing features to his newspaper, including color comics. The Yellow Kid, a tough but sweet slum boy, became the first popular American comic strip character.

The New York World became known for sensational headlines that screamed of crime and scandal. Readership skyrocketed, and other papers followed his lead. Because of the Yellow Kid, critics coined the term yellow journalism to describe the sensational reporting style of the New York World and other papers.

Checkpoint Why did the newspaper industry grow?

Looking Back and Ahead In this section, you saw how education increased the popularity and influence of newspapers. In the next chapter, you will see how newspapers and magazines contributed to a growing reform movement.

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Section 5 | Check Your Progress

Comprehension and Critical Thinking
1. (a) Describe What were schools like before 1870?
(b) Draw Inferences Why do you think compulsory education laws were important for the industrialized North?
2. (a) Identify What were the goals of realists?
(b) Apply Information How did Mark Twain's use of language make his stories more realistic?

Reading Skill
3. Use Popular Word Origins The phrase "yellow journalism" is still used to describe one type of reporting. How has the meaning separated from its origin?

Key Terms
Read each sentence below. If the sentence is true, write YES and explain why. If the sentence is not true, write NO and explain why not.
4. Yellow journalism used sensational headlines to attract readers.

5. Mark Twain was not a realist because he wrote about people.
6. Compulsory education allowed parents to choose whether or not to send children to school.

Writing
7. Do you think memorizing and reciting lessons from books like McGuffey's Readers is a useful way for children to learn? Write a paragraph explaining your opinion. Give at least two reasons.