wealth. At the same time, unions sought to achieve a better balance of power between the productivity of workers. Millions of immigrants arrived to find jobs in the growing economy of the United States.

6. Blacklist

Industry changed rapidly after the Civil War. A host of new inventions helped to increase production and describe how it is changing the business world today.

Impact on Industry

Planning has never been easier! Organize your workday and stay on top of your assignments with TeacherWorks™.

Linking Past and Present Activity

Your neighbor could also listen to your voice.

Connecting every phone to every other phone with a single line was impossible. If your neighbor lived on your line, you were subject to examination, and any item found unsatisfactory could be returned to the company, which paid zero cents more. Ask a man who gets five dollars a day and he will want fifty cents more. The man who makes five dollars an hour will want ten dollars more. When it comes to wages, the policy that government should not interfere in the business world is the policy of the capitalists.

Critical Thinking Skills

What is Gompers's position on the labor movement? Is your position similar? Why or why not? Consider these questions:

1. Is Gompers accurate in his statement about the working man?
2. What does Gompers believe is the main problem of the working man and why?
3. Does Gompers believe that the working man can improve his lot?

Gompers states that 'subject to examination,' and any item found unsatisfactory could be returned to the company, which paid zero cents more. The man who makes five dollars an hour will want ten dollars more. When it comes to wages, the policy that government should not interfere in the business world is the policy of the capitalists. Gompers believes that the working man can improve his lot by forming labor unions and demanding better wages and working conditions.

Meeting NCSS Standards

The following standards are highlighted in Chapter 9:

<table>
<thead>
<tr>
<th>Section</th>
<th>Standard</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>VII</td>
<td>Production, Distribution, and Consumption: A, B</td>
</tr>
<tr>
<td>2</td>
<td>IV</td>
<td>Individual Development and Identity: G</td>
</tr>
<tr>
<td>3</td>
<td>VII</td>
<td>Production, Distribution, and Consumption: A, B, D, E</td>
</tr>
<tr>
<td>4</td>
<td>IV</td>
<td>Individual Development and Identity: A, C</td>
</tr>
</tbody>
</table>
Chapter 9 Resources

**Assessment and Evaluation**

- Chapter 9 Test Form A
- Chapter 9 Test Form B
- Standardized Test Practice Workbook Activity 9
- Performance Assessment Activities and Rubrics 9
- ExamView® Pro Testmaker CD-ROM

**Multimedia**

- Vocabulary PuzzleMaker CD-ROM
- Interactive Tutor Self-Assessment CD-ROM
- ExamView® Pro Testmaker CD-ROM
- Audio Program
- American History Primary Source Documents Library CD-ROM
- MindJogger Videoquiz
- Presentation Plus! CD-ROM
- TeacherWorks™ CD-ROM
- Interactive Student Edition CD-ROM
- Glencoe Skillbuilder Interactive Workbook CD-ROM, Level 2
- The American Republic Since 1877 Video Program
- American Music: Hits Through History
- American Music: Cultural Traditions

**Spanish Resources**

The following Spanish language materials are available in the Spanish Resources Binder:
- Spanish Guided Reading Activities
- Spanish Reteaching Activities
- Spanish Quizzes and Tests
- Spanish Vocabulary Activities
- Spanish Summaries
- The Declaration of Independence and United States Constitution Spanish Translation

**History Online**

Use our Web site for additional resources. All essential content is covered in the Student Edition.

You and your students can visit [tx.tarvol2.glencoe.com](http://tx.tarvol2.glencoe.com), the Web site companion to the *American Republic Since 1877*. This innovative integration of electronic and print media offers your students a wealth of opportunities. The student text directs students to the Web site for the following options:

- **Chapter Overviews**
- **Student Web Activities**
- **Self-Check Quizzes**
- **Textbook Updates**

Answers to the student Web activities are provided for you in the Web Activity Lesson Plans. Additional Web resources and Interactive Tutor Puzzles are also available.

The following videotape programs are available from Glencoe as supplements to Chapter 9:

- **Legacy of King Coal, Empires of American Industry** (ISBN 0-76-700621-6)
- **Dow and Jones: Wizards of Wall Street** (ISBN 0-76-700203-2)

To order, call Glencoe at 1-800-334-7344. To find classroom resources to accompany many of these videos, check the following home pages:

- **A&E Television**: www.aande.com
- **The History Channel**: www.historychannel.com

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## Chapter 9 Resources

### SECTION RESOURCES

<table>
<thead>
<tr>
<th>Daily Objectives</th>
<th>Reproducible Resources</th>
<th>Multimedia Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SECTION 1</strong> The Rise of Industry</td>
<td>Reproducible Lesson Plan 9–1 &lt;br&gt; Daily Lecture and Discussion Notes 9–1 &lt;br&gt; Guided Reading Activity 9–1* &lt;br&gt; Section Quiz 9–1* &lt;br&gt; Reading Essentials and Study Guide 9–1 &lt;br&gt; Performance Assessment Activities and Rubrics</td>
<td>Daily Focus Skills Transparency 9–1 &lt;br&gt; Interactive Tutor Self-Assessment CD-ROM &lt;br&gt; ExamView® Pro Testmaker CD-ROM &lt;br&gt; Presentation Plus! CD-ROM &lt;br&gt; TeacherWorks™ CD-ROM &lt;br&gt; Audio Program &lt;br&gt; Skillbuilder Interactive Workbook, Level 2 &lt;br&gt; ABCNews Interactive Historic America Electronic Field Trips</td>
</tr>
<tr>
<td>1. Identify the effects of expanding population on industry.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Explain the effects of technological innovations such as the telephone and telegraph on American development.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SECTION 2</strong> The Railroads</td>
<td>Reproducible Lesson Plan 9–2 &lt;br&gt; Daily Lecture and Discussion Notes 9–2 &lt;br&gt; Guided Reading Activity 9–2* &lt;br&gt; Section Quiz 9–2* &lt;br&gt; Reading Essentials and Study Guide 9–2 &lt;br&gt; Performance Assessment Activities and Rubrics</td>
<td>Daily Focus Skills Transparency 9–2 &lt;br&gt; Interactive Tutor Self-Assessment CD-ROM &lt;br&gt; ExamView® Pro Testmaker CD-ROM &lt;br&gt; Presentation Plus! CD-ROM &lt;br&gt; TeacherWorks™ CD-ROM &lt;br&gt; Audio Program</td>
</tr>
<tr>
<td>1. Discuss ways in which the railroads spurred industrial growth.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Analyze how the railroads were financed and how they grew.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Analyze how large corporations came to dominate American business.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Evaluate how Andrew Carnegie’s innovations transformed the steel industry.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SECTION 4</strong> Unions</td>
<td>Reproducible Lesson Plan 9–4 &lt;br&gt; Daily Lecture and Discussion Notes 9–4 &lt;br&gt; Guided Reading Activity 9–4* &lt;br&gt; Section Quiz 9–4* &lt;br&gt; Reading Essentials and Study Guide 9–4 &lt;br&gt; Performance Assessment Activities and Rubrics</td>
<td>Daily Focus Skills Transparency 9–4 &lt;br&gt; Interactive Tutor Self-Assessment CD-ROM &lt;br&gt; ExamView® Pro Testmaker CD-ROM &lt;br&gt; Presentation Plus! CD-ROM &lt;br&gt; TeacherWorks™ CD-ROM &lt;br&gt; Vocabulary PuzzleMaker CD-ROM &lt;br&gt; Audio Program</td>
</tr>
<tr>
<td>1. Describe industrial working conditions in the United States in the late 1800s.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. List the barriers to labor union growth.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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0:00 **OUT OF TIME?**

Assign the Chapter 9 **Reading Essentials and Study Guide.**

*Also Available in Spanish*
Chapter 9 Resources

Teaching strategies have been coded.

L1 BASIC activities for all students
L2 AVERAGE activities for average to above-average students
L3 CHALLENGING activities for above-average students
ELL ENGLISH LANGUAGE LEARNER activities

From the Classroom of…
Tom Beaman
Reynolds High School
Troutdale, OR

Strategic Inventions
The rise of the United States to an industrial power started after the Civil War. The period between 1865 and 1901 saw rapid industrialization.

Give students a list of 10 to 15 items invented during this time period that contributed to the growth of industry in the United States. Consider items such as the light bulb, the elevator brake, the ice machine, the telephone, the electric streetcar, and the gasoline-powered car.

Students should research the background of one item’s invention. They should then comment on how it contributed to the growth of industry.

INDEX TO NATIONAL GEOGRAPHIC MAGAZINE

The following articles relate to this chapter.

• “Geronimo,” October 1992
• “New Life for Ellis Island,” September 1990
• “Pittsburgh—Stronger than Steel,” December 1991

NATIONAL GEOGRAPHIC SOCIETY PRODUCTS AVAILABLE FROM GLENCOE

To order the following products for use with this chapter, contact your local Glencoe sales representative, or call Glencoe at 1-800-334-7344:

• PictureShow: Native Americans, 1 and 2 (CD-ROM, Transparencies)
• PictureShow: Immigration (CD-ROM)
• PicturePack: Immigration (Transparencies)

ADDITIONAL NATIONAL GEOGRAPHIC SOCIETY PRODUCTS

To order the following, call National Geographic at 1-800-368-2728:

• Full Steam Ahead: The Race to Build a Transcontinental Railroad
• Historical Atlas of the United States (Atlas)
• Immigration: The Triumph of Hope
• Native Americans (Poster Set)

NGS ONLINE

Access National Geographic’s Web site for current events, atlas updates, activities, links, interactive features, and archives.

www.nationalgeographic.com

ADDITIONAL RESOURCES FROM GLENCOE

• American Music: Cultural Traditions
• American Art & Architecture
• Outline Map Resource Book
• U.S. Desk Map
• Building Geography Skills for Life
• Inclusion for the High School Social Studies Classroom Strategies and Activities
• Teaching Strategies for the American History Classroom (Including Block Scheduling Pacing Guides)

Block Schedule

Activities that are suited to use within the block scheduling framework are identified by: 🧳
**Why It Matters**

The rise of the United States as an industrial power began after the Civil War. Many factors promoted industry, including cheap labor, new inventions and technology, and plentiful raw materials. Railroads rapidly expanded. Government policies encouraged growth, and large corporations became an important part of the economy. As industry expanded, workers tried to form unions to fight for better wages and working conditions.

**The Impact Today**

Trends which began in this era can still be seen today.

- Corporations continue to play an important role.
- Technology continues to change American life.
- Unions remain powerful in many industries.

**The American Republic Since 1877 Video**

The Chapter 9 video, “Building America,” examines industrial expansion in the United States in the late 1800s.

**TWO-MINUTE LESSON LAUNCHER**

Ask students to imagine that they will be choosing outstanding modern inventions, such as machines, processes, materials, medicinal drugs, and new treatments, to exhibit at a technical fair being held in your community. Have students list the inventions that might be included in such an exhibit. **US:** 25D; **ELA:** Gr9/10/11: 78
This painting by twentieth-century artist Aaron Bohrod captures the dynamism of an industrializing nation. Bohrod titled his work The Big Blow: the Bessemer Process.

1886 - Haymarket Square riot
1892 - Homestead strike occurs
1894 - Pullman strike begins
1901 - J.P. Morgan forms U.S. Steel
1895 - 1896 - Rudolf Diesel patents diesel engine
1896 - Athens hosts first modern Olympic games
1900 - Boxer Rebellion begins in China
1903 - Women's Trade Union League founded

HISTORY Online
Introduce students to chapter content and key terms by having them access the Chapter 9 Overview at tx.tarvol2.glencoe.com.

More About the Art
Aaron Bohrod (1907–1992) was well known during his lifetime as a painter, sculptor, printmaker, ceramist, and illustrator. Many of his paintings exhibit social realism and attention to detail.

TIME LINE
ACTIVITY
Have students write a paragraph about how the events listed on the time line have affected their lives within the last year. Invite students to share their experiences with the class. US: 25D; ELA: Gr9/10/11: 1A

GRAPHIC ORGANIZER ACTIVITY
Organizing Information Have students use a graphic organizer similar to the one shown below to link these areas of industrialization to key names in this chapter. US: 25D

Industrialization
- railroads
  - Vanderbilt
- steel
  - Carnegie
- oil
  - Rockefeller
- technology
  - Edison
- unions
  - Gompers
American industry grew rapidly after the Civil War, bringing revolutionary changes to American society.

Main Idea
American industry grew rapidly after the Civil War, bringing revolutionary changes to American society.

Key Terms and Names
gross national product, Edwin Drake, laissez-faire, entrepreneur, Morrill Tariff, Alexander Graham Bell, Thomas Alva Edison

Reading Strategy
Organizing As you read about the changes brought about by industrialization, complete a graphic organizer similar to the one below listing the causes of industrialization.

Reading Objectives
• Identify the effects of expanding population on industry.
• Explain the effects of technological innovations such as the telephone and telegraph on American development.

Section Theme
Economic Factors The free enterprise system nurtured the growth of American industry.

The United States Industrializes
Although the Industrial Revolution began in the United States in the early 1800s, the nation was still largely a farming country when the Civil War erupted. Out of a population of more than 30 million, only 1.3 million Americans worked in industry in 1860. After the Civil War, industry rapidly expanded, and millions of Americans left their farms to work in mines and factories.

By the early 1900s, Americans had transformed the United States into the world’s leading industrial nation. By 1914 the nation’s gross national product (GNP)—the total
value of all goods and services produced by a country—was eight times greater than it had been when the Civil War ended.

**Natural Resources**  An abundance of raw materials was one reason for the nation’s industrial success. The United States contained vast natural resources upon which industry in the 1800s depended, including water, timber, coal, iron, and copper. The presence of these resources meant that American companies could obtain them cheaply and did not have to import them from other countries. Many of the nation’s resources were located in the mountains of the American West. The settlement of this region after the Civil War helped to accelerate industrialization, as did the construction of the transcontinental railroad. Railroads brought settlers and miners to the region, and carried the resources back to factories in the East.

At the same time, a new resource, petroleum, began to be exploited. Even before the invention of the automobile, petroleum was in high demand because it could be turned into kerosene. Kerosene fueled economic expansion. Population growth stemmed from two causes—large families and a flood of immigrants. American industry began to grow at a time when social and economic conditions in China and eastern Europe convinced many people to leave their nations and move to the United States in search of a better life. Between 1870 and 1910, roughly 20 million immigrants arrived in the United States. These multitudes added to the growing industrial workforce, helping factories increase their production and furthering demand for industrial products.

**A Large Workforce**  The human resources available to American industry were as important as natural resources in enabling the nation to industrialize rapidly. Between 1860 and 1910, the population of the United States almost tripled. This population provided industry with a large workforce and also created greater demand for the consumer goods that factories produced.

**Organize students into groups of four. The groups will be entrepreneurs in the industrial climate of the late 1800s. Have each group decide what product or service it wants to provide. Assign to each student in the group one of the following research topics: what human and mineral resources they will use in their business, which of the newest scientific methods and inventions they plan to use, how they want to ship their product or sell their services, and what public policies and private investment practices they plan to follow. Have the group as a whole review and revise one another’s work.**

**Writing a Magazine Article**  Have students write a magazine article about one of the new inventions mentioned in this section. Instruct students to write the article as it might have appeared at the time the invention was introduced. **L1 US: 22B, 22C, 24A–D, 25A–D; ELA: Gr9/10/11: 1A, 1B**

**Use the rubric for creating a magazine, newspaper, Web site article, or help wanted ad on pages 75–76 in the Performance Assessment Activities and Rubrics.**

**CHAPTER 9  Industrialization**

**Starting a Business**  Organize students into groups of four. The groups will be entrepreneurs in the industrial climate of the late 1800s. Have each group decide what product or service it wants to provide. Assign to each student in the group one of the following research topics: what human and mineral resources they will use in their business, which of the newest scientific methods and inventions they plan to use, how they want to ship their product or sell their services, and what public policies and private investment practices they plan to follow. Have the group as a whole review and revise one another’s work. **US: 88, 14D, 22C, 24A–D, 26B; ELA: Gr9/10/11: 13B, 13C**

**Use the rubric for a cooperative group management plan on pages 71–72 in the Performance Assessment Activities and Rubrics.**
**American Inventions**

<table>
<thead>
<tr>
<th>Year</th>
<th>Invention</th>
<th>Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>1852</td>
<td>Elevator brake</td>
<td>Elisha Otis</td>
</tr>
<tr>
<td>1854</td>
<td>Retail cooler</td>
<td>John Hall</td>
</tr>
<tr>
<td>1860</td>
<td>Cartoon film</td>
<td>William Friese-Greene</td>
</tr>
<tr>
<td>1864</td>
<td>George Pullman, rail sleeping car</td>
<td>George Pullman</td>
</tr>
<tr>
<td>1865</td>
<td>Thaddeus Lowe, ice machine</td>
<td>Thaddeus Lowe</td>
</tr>
<tr>
<td>1869</td>
<td>Telephone</td>
<td>Alexander Graham Bell</td>
</tr>
<tr>
<td>1874</td>
<td>Electric streetcar</td>
<td>Stephen Dudley Field</td>
</tr>
<tr>
<td>1876</td>
<td>Bell, telephone</td>
<td>Alexander Graham Bell</td>
</tr>
</tbody>
</table>

**Free Enterprise**

Another important factor that enabled the United States to industrialize rapidly was the free enterprise system. In the late 1800s, many Americans embraced the idea of *laissez-faire* (lah·say·FAR), literally “let do,” a French phrase meaning “let people do as they choose.” Supporters of laissez-faire believe the government should not interfere in the economy other than to protect private property rights and maintain peace. These supporters argue that if the government regulates the economy, it increases costs and eventually hurts society more than it helps.

**Government’s Role in Industrialism**

In many respects, the United States practiced laissez-faire economics in the late 1800s. State and federal governments kept taxes and spending low and did not impose costly regulations on industry. Nor did they try to control wages and prices. In other ways, the government went beyond laissez-faire and adopted policies intended to help industry, although these policies frequently produced results other than what had been intended.

Since the early 1800s, the struggle between the northeastern states and the southern states had shaped the economic debate in the United States. Northern leaders wanted high tariffs to protect American industry from foreign competition. They also sought federal subsidies for companies building roads, canals, and railroads to the west. Southern leaders opposed subsidizing internal improvements, and they favored low tariffs to promote trade and to keep the cost of imported manufactured goods low.

The Civil War ended this debate. When the South seceded, the Republicans were left in control of Congress. They quickly passed the *Morrill Tariff*, which provided federal support for land-grant colleges. The Morrill Act, passed in 1862, provided land and money to universities for the purpose of education and research in agriculture and mechanical arts.

---

**Guided Reading Activity 9–1**

**Creating a Time Line**

Have students research one of the inventions featured on the time line that appears on pages 310 and 311. Instruct students to create a time line for significant events related to the chosen invention. For example, a timeline for the telephone might include the dates for the invention of the telephone keypad, the cordless telephone, and the cell phone. Encourage students to use library and Internet resources for this project. L2 US: 1B, 22A, 24A–D, 25C, 25D; ELA: Gr9/10/11: 4A–D, 4F, 13B, 13C; Gr9: 7D–I; Gr10/11: 7D–H

**Use the rubric for creating a map, display, or chart on pages 65–66 in the Performance Assessment Activities and Rubrics.**

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**Social Studies TAKS tested at Grades 10/11:** Obj 3: WG10C(10,11), US2B(11) Obj 3: WG10C(10,11)

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**Interpersonal**

Have each student list the electrical equipment he or she uses during a typical week. Then ask students to identify two adults, one between 40 and 50 years old, and a second between 60 and 70 years old. Have the adults check off the electrical appliances they used as teenagers. Have students discuss what the lists reflect about the recent explosion of inventions. L1

Refer to *Inclusion for the High School Social Studies Classroom Strategies and Activities* in the TCR.
reversing years of declining tariffs. By the end of the Civil War, tariffs had risen sharply. Congress also gave vast tracts of western land and millions of dollars in loans to western railroads. The government also sold public lands with mineral resources for much less than their market value. Historians still dispute whether these policies helped to industrialize the country.

Supporters of laissez-faire generally favor free trade and oppose subsidies, believing that tariffs and subsidies drive up prices and protect inefficient companies. They point out that one reason the United States industrialized so rapidly in the 1800s was the network of transportation and communications that was vital to the nation’s productive capacity and improved the movement of goods across the country. Similarly, the United States practiced free trade in labor, placing very few restrictions on immigration.

High tariffs, however, contradicted laissez-faire ideas and hurt many Americans. When the United States raised tariffs against foreign goods, other countries raised their tariffs against American goods. This hurt American companies trying to sell goods overseas, and in particular, it hurt farmers who sold their products to Europe. Ironically, the problems farmers faced may have helped speed up industrialization, as many rural Americans decided to leave their farms and take jobs in the new factories.

Despite the problems tariffs created for trade, many business leaders and members of Congress believed they were necessary. Much of Western Europe had already industrialized, and few believed that the new American industries could compete with the large established European factories unless tariffs were put in place to protect them. By the early 1900s, many American industries were large and highly competitive. Business leaders increasingly began to push for free trade because they believed they could compete internationally and win.

### New Inventions

A flood of important inventions helped increase the nation’s productive capacity and improved the network of transportation and communications that was vital to the nation’s industrial growth. New inventions led to the founding of new corporations, which produced new wealth and new jobs.

**TECHNOLOGY**

Bell and the Telephone

One of the most dramatic inventions in the late 1800s came in the field of communications. In 1874 a young Scottish-American inventor named Alexander Graham Bell suggested the idea of a telephone to his assistant, Thomas Watson. Watson recalled, “He had an idea by which he believed it would be possible to talk by telegraph.” Bell intended to make an electrical current of varying intensity transmit sound.

Bell worked until 1876 before he succeeded in transmitting his voice. Picking up the crude telephone, he called to the next room, “Come here, Watson, I want you.” Watson heard and came. The telephone...
312 CHAPTER 9

SECTION 1 ASSESSMENT


1. Terms are in blue. US: 25A
2. Edwin Drake (p. 309), Morrill Tariff (p. 310), Alexander Graham Bell (p. 311), Thomas Alva Edison (p. 312)
3. Americans did not have to import resources from other countries, saving resources for internal growth.
4. They put development in the hands of entrepreneurs, not the government. US: 2B
5. Congress subsidized railroads; sold lands below market value US: 2B
6. telephone: better communications; lightbulb: cheap lighting; automatic loom: made cloth faster US: 22C, 25C
7. possible answers: 1859, first oil well dug; 1882, Edison Electric Illuminating Company supplies electric power to New York City; 1877, first refrigerated railroad car; 1893, Northrup automatic loom

Checking for Understanding

2. Identify: Edwin Drake, Morrill Tariff, Alexander Graham Bell, Thomas Alva Edison.
3. Explain: how an abundance of natural resources contributed to economic growth in the United States in the late 1800s.

Invention Effects

<table>
<thead>
<tr>
<th>Invention</th>
<th>Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>telephone</td>
<td></td>
</tr>
<tr>
<td>lightbulb</td>
<td></td>
</tr>
<tr>
<td>automatic loom</td>
<td></td>
</tr>
</tbody>
</table>

Critical Thinking

5. Synthesizing: What role did the federal government play in increasing industrialization in the United States after the Civil War?
6. Organizing: Use a graphic organizer similar to the one below to indicate how the inventions listed affected the nature of American work and business.

Reviewing Themes

4. Economic Factors: How did the principles of the free enterprise system, laissez-faire, and profit motive encourage the rise of industry?

Analyzing Visuals

7. Applying Time Lines: Copy the time line on pages 310 and 311 onto a separate sheet of paper. Add other inventions you have learned about to the time line in proper chronological order. Be sure to include the date for each invention.

Descriptive Writing

8. Imagine you are a young person living in this country in the late 1800s. Choose one of the inventions discussed in the section, and write a journal entry describing its impact on your life. Use standard grammar, spelling, sentence structure, and punctuation.

Reading Check

Answer: revolutionized business by opening up entirely new markets for inventions and goods to sell

CLOSE

Have students explain the effects of technological innovations such as the telephone and telegraph on American industrial development. US: 22A, 23A; ELA: Gr9/10: 16E; Gr11: 15E

Reteach

Have students identify the effects of expanding population on industry. US: 8B, 14D, 24B

Enrich


Student Edition TEKS

ELA: Page 312: Gr9/10/11: 1A, 1B, 4A, 4B, 4D, 4F, 6A, 7B–D, 10A, 10B, 19B, 20B; Gr9: 7I; Gr10/11: 7H; Page 313: Gr9: 7H; Gr10/11: 7G

In the early 1870s, Gustavus Swift hired an engineer to develop a refrigerated railroad car. In 1877 Swift shipped the first refrigerated load of fresh meat. The widespread use of refrigeration allowed food to be kept fresh longer and reduced the risk of disease from food poisoning.

The textile industry had long depended on machines to turn fibers into cloth. By the mid-1800s, the introduction of the Northrop automatic loom allowed cloth to be made at an even faster rate. Bobbins, which previously had been changed by hand, were now changed automatically without stopping the loom.

Great changes also took place in the clothing industry. Standard sizes, developed from measurements taken of Union soldiers during the Civil War, were used in the manufacture of ready-made clothes. Power-driven sewing machines and cloth cutters rapidly moved the clothing business from small tailor shops to large factories.

Similar changes took place in shoemaking. New processes and inventions made increased production possible in the shoe industry. Large factories could mass-produce shoes more cheaply and efficiently than local cobblers and could pass these savings on to their customers in the form of lower prices. By 1900 local cobblers had nearly disappeared. Prices of many other products also dropped as the United States industrialized.
Making Inferences

Why Learn This Skill?
Just as you are about to leave home to catch your school bus, you hear a radio report. Firefighters are battling a blaze near the bus garage. Your bus is late. Although no one told you, you know that the fire disrupted the bus schedule. You have made an inference. From the limited facts available, you formed a conclusion. You knew that the fire was near the garage and that firetrucks often create traffic jams. By combining facts and general knowledge, you inferred that the firetrucks delayed your bus.

Learning the Skill
Learning how to make inferences will help you draw conclusions about particular situations. To make accurate inferences, follow these steps:
1. Read or listen carefully for stated facts and ideas.
2. Review what you already know about the same topic or situation.
3. Use logic and common sense to form a conclusion about the topic.
4. If possible, find information that proves or disproves your inference.

Practicing the Skill
Read the following passage about George Eastman, then answer the questions that follow.

George Eastman had to quit school at the age of 13 to support his mother and sisters. He worked as an office boy and later as a bookkeeper. An eager amateur photographer, Eastman disliked the complicated process of working with wet photographic plates. After resigning from his bank job in 1881, Eastman began a company, Kodak, where he manufactured dry photographic plates.

Eastman also pioneered new employer-employee relations within his company. He gave one-third of the company profits to Kodak employees in the form of wage dividends, stock options, savings and loans plans, and pension and benefit programs. Eastman later donated much of his vast wealth to charity.

Skills Assessment
Complete the Practicing Skills questions on page 333 and the Chapter 9 Skill Reinforcement Activity to assess your mastery of this skill.

Applying the Skill
Making Inferences Preview the biography of Mary Harris "Mother" Jones on page 328, and then answer these questions.
1. What kind of work did Jones's husband do before he died?
2. Using this information, what inference can you make about Mary Jones?
3. How did Jones travel to West Virginia while working as an organizer for the United Mine Workers? How old was she at the time?
4. Based on these facts, what inference can you make about how the people in the mining camps felt about Jones?

ANSWERS TO PRACTICING THE SKILL
1. He quit school at 13 to support his mother and sisters; worked as an office boy and later as a bookkeeper.
2. His childhood was more like adult life than childhood.
3. He gave one-third of company profits to employees.
4. He appreciated their contributions.

Applying the Skill
1. He was a union organizer.
2. His work inspired hers.
3. She traveled on foot or atop a farm wagon. She was 67 years old.
4. Students' answers will vary.
Linking the Nation
In 1865 the United States had about 35,000 miles of railroad track, almost all of it east of the Mississippi River. After the Civil War, railroad construction expanded dramatically, linking the distant regions of the nation in a transportation network. By 1900 the United States, now a booming industrial power, boasted over 200,000 miles of track.
The railroad boom began in 1862 when President Abraham Lincoln signed the Pacific Railway Act. This act provided for the construction of a transcontinental railroad by two corporations, the Union Pacific and the Central Pacific railroad companies. To encourage rapid construction, the government offered each company land along its right-of-way. Feverish competition between the two companies developed, as each sought to obtain as much public land and money as possible.

The Union Pacific and Grenville Dodge Under the direction of engineer Grenville Dodge, a former Union general, the Union Pacific began pushing westward from Omaha, Nebraska, in 1865. The laborers faced blizzards in the mountains, scorching heat in the desert, and sometimes angry Native Americans. Labor, money, and engineering problems plagued the supervisors of the project. As Dodge observed:

"At one time we were using at least ten thousand animals, and most of the time from eight to ten thousand laborers. To supply one mile of track with material and supplies required about forty cars. Everything—rails, ties, bridging, fastenings, all railway supplies, fuel for locomotives and trains, and supplies for men and animals on the entire work—had to be transported from the Missouri River."

—quoted in The Growth of the American Republic

The railroad workers included Civil War veterans, new immigrants from Ireland recruited especially for the task, frustrated miners and farmers, cooks, adventurers, and ex-convicts. At the height of the project, the Union Pacific employed about 10,000 workers. While most of the laborers camped along the line, about one-fourth of them slept three-deep in bunk beds on rolling boarding cars. Camp life was rough, dirty, and dangerous, with lots of gambling, hard drinking, and fighting.

The Big Four and the Central Pacific The Central Pacific Railroad began as the dream of engineer Theodore Dehone Judah, who convinced the California legislature to organize a state railroad convention to support his idea. He sold stock in his fledging Central Pacific Railroad Company to four Sacramento merchants: grocer Leland Stanford, shop owner Charley Crocker, and hardware store owners Mark Hopkins and Collis P. Huntington.

These so-called “Big Four” eventually made huge fortunes from their investment. Leland Stanford

Creating a Display Organize students into small groups. Assign each group one of the following topics: the development of the steam locomotive in the United States, the use of custom Pullman cars, or the architecture of railroad terminals. Have each group research its topic and prepare a display based on the research. **US: 8A, 24A–D, 25A–D, 26A; ELA: Gr9/10/11: 4A–D, 4F, 13B, 13C; Gr9: 7D–H; Gr10/11: 7D–G**

Use the rubric for a cooperative group management plan on pages 71–72 in the Performance Assessment Activities and Rubrics.
The railroad boom began in 1862 when President Lincoln signed the

The had four primary investors known as the

Because of a in California, the Central Pacific Railroad

Railroad consolidation

Railroad consolidation proceeded rapidly from 1865 to 1900. Large rail lines took over about 400 small railroads, and by 1890 the Pennsylvania Railroad was a consolidation of 73 smaller companies. Eventually seven giant systems with terminals in major cities and scores of branches reaching into the countryside controlled most rail traffic.

One of the most famous and successful railroad consolidators was Cornelius Vanderbilt, a former boat captain who had built the largest steamboat fleet in America. By 1869 Vanderbilt had purchased and merged three short New York railroads to form the New York Central, running from New York City to Buffalo. Within four years he had extended his control over lines all the way to Chicago, which enabled him to offer the first direct rail service between New York City and Chicago. In 1871 Vanderbilt began construction of New York’s Grand Central terminal.

The Benefits of a National System

Before the 1880s each community set its clocks by the sun’s position in the sky at high noon. At noon in Chicago, for example, it was 12:50 P.M. in Washington, D.C., 12:09 P.M. in Louisville, Kentucky, and 11:41 A.M. in St. Paul, Minnesota. Local time interfered with train scheduling and at times even threatened passenger safety. When two trains traveled on the same track, collisions could result from scheduling errors caused by variations in time.

To make rail service safer and more reliable, in 1883 the American Railway Association divided the country into four time zones in regions where the same time was kept. The federal government ratified this change in 1918.

Large integrated railroad systems benefited the nation. They were able to shift cars from one section of the country to another according to seasonal needs and in order to speed long-distance transportation. At the same time, new locomotive technology and the introduction of air brakes enabled railroads to put longer and heavier trains on their lines. The new rail systems, along with more powerful locomotives,
made railroad operation so efficient that the average rate per mile for a ton of freight dropped from two cents in 1860 to three-fourths of a cent in 1900.

The nationwide rail network also helped unite Americans in different regions. Looking back at a quarter century of railroad travel, the Omaha Daily Republican observed in 1883 that railroads had “made the people of the country homogeneous, breaking through the peculiarities and provincialisms which marked separate and unmingling sections.” This was, perhaps, an overstatement, but it recognized a significant contribution that railroads made to the nation.

**Reading Check**

**Explaining** Why did the American Railway Association divide the country into four time zones?

**The Land Grant System**

Building and operating railroad lines, especially across the vast unsettled regions of the West, often required more money than most private investors could raise on their own. To encourage railroad construction, the federal government gave **land grants** to many railroad companies. Railroads would then sell the land to settlers, real estate companies, and other businesses to raise the money they needed to build the railroad.

In the 1850s, the federal government granted individual states over 28 million acres of public lands to give to the railroads. After the Pacific Railway Acts of 1862 and 1864, the government gave the land directly to the railroad companies.

During the 1850s and 1860s, the federal land grant system awarded railroad companies over 120 million acres of land, an area larger than New England, New York, and Pennsylvania combined. Several railroad companies, including the Union Pacific and the Central Pacific, earned enough money from the government’s generous land grants to cover much of the cost of building their lines.

**Reading Check**

**Summarizing** How did the government help finance railroads?

**Robber Barons**

The great wealth many railroad entrepreneurs acquired in the late 1800s led to accusations that they had built their fortunes by swindling investors and

**INTERDISCIPLINARY CONNECTIONS ACTIVITY**

**Language Arts** Tell students that most large industries have their own specialized terms that are used on the job. Have interested students create a lexicon of terms used by railroad workers. Tell them that the lexicon should include the term, its pronunciation, and good, working definitions. For at least two of the terms, students should also include a drawing or diagram for further explanation. **L2** **US:** 24A, 25D; **ELA:** Gr9/10/11: 6A
Section Quiz 9–2

Checking for Understanding
1. Define: time zone, land grant.
4. Individual Action: How did Grenville Dodge contribute to the economic growth of the United States in the late 1800s?

Critical Thinking
5. Synthesizing: How did railroad expansion in the United States lead to industrial growth?
6. Organizing: Use a graphic organizer similar to the one below to list the different ways that railroads were financed.

Analyzing Visuals
7. Examining Maps and Graphs: Study the map and the graph on page 317. Then make up a quiz of at least five questions based on the information presented.

Writing About History
8. Persuasive Writing: Take on the role of an employee of a major railroad corporation. Your job assignment is to write an advertisement to recruit workers for your corporation. After writing the advertisement, present it to your class.

TAKS Practice

Answer: shipped goods both ways, operated without aid, and was a financial success.

Chapter 9
Section 2, 314–318

Time Tales
Opponents of standard time called local time “God’s time” because it was based on the laws of nature—the sun’s position in the sky. Not until 1918 was Congress able to pass a law that standardized time zones.

Close
Have students discuss ways in which the railroads spurred industrial growth. US: 2B; ELA: Gr9/10: 16E; Gr11: 15E

TAKS Practice

Student Edition TEKS

ELA: Page 318: Gr9/10/11: 1A, 1B, 4A, 4B, 4D, 4F, 6A, 7B–D, 10A, 10B, 19B, 20B; Gr9: 7I; Gr10/11: 7H;

Gr9/10/11: 1A, 1B, 1C; Gr9: 7D–H; Gr10/11: 7D–G

ELA: Page 319: Gr9/10/11: 4D, 6A, 7D, 7F, 8B

Student Edition TEKS

ELA: Page 319: Gr9/10/11: 1A, 1B, 4A, 4B, 4D, 4F, 6A, 7B–D, 10A, 10B, 19B, 20B; Gr9: 7I; Gr10/11: 7H;

Page 319: Gr9/10/11: 4D, 6A, 7D, 7F, 8B

Terms are in blue. US: 25A
2. Pacific Railway Act (p. 315), Grenville Dodge (p. 315), Leland Stanford (p. 315), Cornelius Vanderbilt (p. 316), Jay Gould (p. 318), Crédit Mobilier (p. 318), James J. Hill (p. 318)

3. provided for the construction of the transcontinental railroad

4. supervised the Union Pacific’s westward expansion

5. increased size of markets, spent great amounts of money on resources

6. land grants, private investment, gifts of public lands to railroads, money generated from running the railroads

Sun listing the members of Congress who had accepted stock from the railroad.

The Great Northern

The Crédit Mobilier scandal provided sensational newspaper headlines. It created the impression that all railroad entrepreneurs were robber barons—people who loot an industry and give nothing back—but the term was not always deserved.

One railroad entrepreneur who was clearly not a robber baron was James J. Hill. Hill built and operated the Great Northern Railroad from St. Paul, Minnesota, to Everett, Washington, without any federal land grants or subsidies. He built the Great Northern across good land, carefully planning his route to pass by towns in the region. To increase business, he offered low fares to settlers who homesteaded along his route. He then identified American products that were in demand in China, including cotton, textiles, and flour, and arranged to haul those goods to Washington for shipment to Asia. This enabled the railroad to earn money by hauling goods both east and west, instead of simply sending lumber and farm products east and coming back empty, as many other railroads did. Operating without government subsidies or land grants, the Great Northern became the most successful transcontinental railroad and the only one that was not eventually forced into bankruptcy.

SUN

One Manipulator of the Game

The worst reputation for this kind of activity was given to the railroad companies by the government to avoid giving them too much power. As a result, many investors bribed members of Congress and the state legislatures to vote for more grants.

The Crédit Mobilier Scandal

The corruption in the railroad industry became public in 1872 when the Crédit Mobilier scandal erupted. Crédit Mobilier was a construction company set up by several stockholders of the Union Pacific, including Oakes Ames, a member of Congress. Acting for both the Union Pacific and Crédit Mobilier, the investors signed contracts with themselves. Crédit Mobilier greatly overcharged Union Pacific for the work it did, and since the same investors controlled both companies, the railroad agreed to pay the inflated bills.

By the time the Union Pacific railroad was completed, the investors had made several million dollars, but the railroad itself had used up its federal grants and was almost bankrupt. To convince Congress to give the railroad more grants, Ames gave other members of Congress shares in the Union Pacific at a price well below their market value.

During the election campaign of 1872, a disgruntled associate of Ames sent a letter to the New York taxpayers, bribing government officials, and cheating on their contracts and debts. The person with probably the worst reputation for this kind of activity was Jay Gould, who often practiced “insider trading.” He used information he received as a railroad owner to manipulate stock prices to his benefit.

Bribery occurred frequently in this era, partly because the state and federal governments were so deeply entangled in funding the railroads. Railroad investors quickly discovered that they could make more money by acquiring government land grants than by operating the railroad. As a result, many investors bribed members of Congress and the state legislatures to vote for more grants.
**Main Idea**
After the Civil War, big business assumed a more prominent role in American life.

**Key Terms and Names**
corporation, stockholder, stock, economies of scale, fixed costs, operating costs, pool, Andrew Carnegie, Bessemer process, vertical integration, horizontal integration, monopoly, trust, holding company

**Preview of Events**
- **1862**: John D. Rockefeller buys first oil refinery
- **1875**: Andrew Carnegie opens steel mill in Pittsburgh
- **1879**: Woolworth’s chain store opens
- **1882**: Dow Jones & Company founded
- **1901**: J.P. Morgan forms U.S. Steel

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**Reading Strategy**
Organizing As you read about the rise of corporations in the United States, complete a graphic organizer similar to the one below to describe the steps large business owners took to weaken or eliminate competition.

**Reading Objectives**
- **Analyze** how large corporations came to dominate American business.
- **Evaluate** how Andrew Carnegie’s innovations transformed the steel industry.

**Section Theme**
Economic Factors Large national corporations formed in the United States in the mid-1800s and contributed to greater production.

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**An American Story**

In the 1860s, the oil industry in the United States was highly competitive. One highly efficient company was Standard Oil, owned by John D. Rockefeller and his associates. Because his company shipped so much oil, Rockefeller was able to negotiate rebates, or refunds, from railroads that wanted his business. This gave his company an advantage, and he began to pressure other oil companies to sell out to him.

Oil producer Franklin Tarbell pledged never to surrender. Tarbell’s daughter Ida later recalled her father’s indignation over Rockefeller’s maneuvers:

"It was as if somebody had tried to crowd me off the road. . . . There were rules, you couldn’t use the road unless you obeyed those rules. . . . The railroads—so said my father—ran through the valley by the consent of the people; they had given them a right of way. The road on which I trotted was a right of way. One man had the same right as another, but the railroads had given to one something they would not give to another. . . . The strong wrested from the railroads the privilege of preying upon the weak."

—quoted in *All in the Day’s Work*

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**The Rise of Big Business**
Before the Civil War, the personal wealth of a few people operating in partnership financed most businesses, including many early factories. Most manufacturing enterprises were very small. By 1900 everything had changed. Big businesses dominated the economy, operating vast complexes of factories, warehouses, offices, and distribution facilities.

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**SECTION RESOURCES**
- **Reproducible Masters**
  - Reproducible Lesson Plan 9–3
  - Daily Lecture and Discussion Notes 9–3
  - Guided Reading Activity 9–3
  - Section Quiz 9–3
  - Reading Essentials and Study Guide 9–3
- **Transparencies**
  - Daily Focus Skills Transparency 9–3
- **Multimedia**
  - American Art & Architecture
  - Interactive Tutor Self-Assessment CD-ROM
  - ExamView® Pro Testmaker CD-ROM
  - Presentation Plus! CD-ROM
  - TeacherWorks™ CD-ROM
  - Audio Program

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**BELLRINGER**

**Skillbuilder Activity**
Project transparency and have students answer the question.

Available as a blackline master.

**Daily Focus Skills Transparency 9–3**

**ANSWER:**

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**The Role of Corporations** Big business would not have been possible without the corporation. A corporation is an organization owned by many people but treated by law as though it were a single person. A corporation can own property, pay taxes, make contracts, and sue and be sued. The people who own the corporation are called stockholders. Because they own shares of ownership called stock, stockholders have a financial interest in the corporation. Issuing stock allows a corporation to raise large amounts of money for big projects while spreading out the financial risk.

Before the 1830s, there were few corporations in the United States because entrepreneurs had to convince a state legislature to issue them a charter. Beginning in the 1830s, however, states began passing general incorporation laws, allowing companies to become corporations and issue stock without charters from the legislature.

**Economies of Scale** With the money they raised from the sale of stock, corporations could invest in new technologies, hire a large workforce, and purchase many machines, greatly increasing their efficiency. This enabled them to achieve what is called economies of scale, in which corporations make goods more cheaply because they produce so much so quickly using large manufacturing facilities. All businesses have two kinds of costs, fixed costs and operating (or variable) costs. Fixed costs are costs a company has to pay, whether or not it is operating. For example, a company would have to pay its loans, mortgages, and taxes, regardless of whether it was operating. Operating costs are costs that occur when running a company, such as paying wages and shipping charges and buying raw materials and other supplies.

The small manufacturing companies that had been typical before the Civil War usually had very low fixed costs but very high operating costs. If sales dropped, it was cheaper to shut down and wait for better economic conditions. By comparison, big companies had very high fixed costs because it took so much money to build and maintain a factory. Compared to their fixed costs, big businesses had low operating costs. Wages and transportation costs were such a small part of a corporation’s costs that it made sense to keep operating, even in a recession. In these circumstances, big corporations had several advantages. They could produce goods more cheaply and efficiently. They could continue to operate in poor economic times by cutting prices to increase sales, rather than shutting down. Many were also able to negotiate rebates from the railroads, thus lowering their operating costs even further.

Small businesses with high operating costs found it difficult to compete against large corporations, and many were forced out of business. At the time, many people criticized corporations for cutting prices and negotiating rebates. They believed the corporations were behaving unethically by using their wealth to drive small companies out of business. In many cases, the changing nature of business organization and the new importance of fixed costs that caused competition to become so severe forced many small companies out of business.

**The Consolidation of Industry**

Many corporate leaders did not like the intense competition that had been forced on them. Although falling prices benefited consumers, they cut into profits. To stop prices from falling, many companies organized pools, or agreements to maintain prices at a certain level. American courts and legislatures were suspicious of pools because they interfered with competition and property rights. As a result, companies that formed pools had no legal protection and could not enforce their agreements in court. Pools generally did not last long. They broke apart whenever one member cut prices to steal the market share from another, which then allowed competition to resume. By the 1870s, competition had reduced many industries to a few large and highly efficient corporations.

**Andrew Carnegie and Steel** The remarkable life of Andrew Carnegie illustrates many of the different factors that led to industrialism and the rise of big business in the United States. He was born in Scotland, the son of a poor hand weaver who emigrated to the United States in 1848. At a young age, Carnegie worked as a bobbin boy in a textile factory earning $1.20 per week. At 14 he became a messenger in a telegraph office, then served as private secretary to Thomas Scott, a superintendent and later president of the Pennsylvania Railroad. Carnegie’s energy impressed Scott, and when Scott was promoted, Carnegie succeeded him as superintendent.

As a railroad supervisor, Carnegie knew that he could make a lot of money by investing in companies that served the railroad industry. He bought shares in iron mills and factories that made sleeping cars and also able to negotiate rebates from the railroads, thus lowering their operating costs even further.
locomotives. He also invested in a company that built railroad bridges. In his early 30s, he was earning $50,000 per year, and he decided to quit his job with the railroad to concentrate on his own business affairs.

As part of his business activities, Carnegie frequently traveled to Europe to sell railroad bonds. On one trip, he met the English inventor, Sir Henry Bessemer, who had invented a new process for making high quality steel efficiently and cheaply. After meeting Bessemer, Carnegie decided to concentrate his investments in the steel industry. He opened a steel company in Pittsburgh in 1875 and quickly adapted his steel mills to use the Bessemer process. Carnegie often boasted about how cheaply he could produce steel:

"Two pounds of iron stone mined upon Lake Superior and transported nine hundred miles to Pittsburgh; one pound and one-half of coal mined and manufactured into coke, and transported to Pittsburgh; one-half pound of lime, mined and transported to Pittsburgh; a small amount of manganese ore mined in Virginia and brought to Pittsburgh—and these four pounds of materials manufactured into one pound of steel, for which the consumer pays one cent."

—quoted in The Growth of the American Republic

**Vertical and Horizontal Integration**

To increase manufacturing efficiency even further, Carnegie took the next step in building a big business. He did this by beginning the **vertical integration** of the steel industry. A vertically integrated company owns all of the different businesses on which it depends for its operation. Instead of paying companies for coal, lime, and iron, Carnegie’s company bought coal mines, limestone quarries, and iron ore fields. Vertical integration saved companies money while enabling big companies to become even bigger.

Successful business leaders like Carnegie also pushed for **horizontal integration**, or combining many firms engaged in the same type of business into one large corporation. Horizontal integration took place frequently as companies competed. When a company began to lose market share, it would often sell out to competitors to create a larger organization. By 1880, for example, a series of buyouts had enabled Rockefeller’s Standard Oil to gain control of approximately 90 percent of the oil refining industry in the United States. When a single company achieves control of an entire market, it becomes a **monopoly**. Many Americans feared monopolies because they believed that a company with a monopoly could charge whatever it wanted for its products. Others, however, supported monopolies. They believed that monopolies had to keep prices low because raising prices would encourage competitors to reappear and offer products for a lower price. In some industries companies had a virtual monopoly in the United States but were competing on a global scale. Standard Oil, for example, came very close to having a monopoly in the United States, but competition with other

**Chart Skills**

**Horizontal and vertical integration were the two most common business combinations in the late 1800s.**

**Evaluating** Which combination do you think would yield the most efficient business? Why?

**Answer:** Answers may vary. Both could be highly efficient if well managed. Some students may favor vertical integration since they may argue that horizontal integration reduces competition and may lead to less efficient giant business.

**Chart Skills Practice**

**Ask:** What potential problems exist if one large business buys all its competitors? (The resulting monopoly can charge high prices; it has less reason to be highly efficient.)

**Discussing a Topic** Have students compare the game of Monopoly with the monopolies built by Rockefeller and other magnates. **L1 US:** 2B, 24B

**FYI**

Much like Standard Oil, the Organization of Petroleum Exporting Countries (OPEC) tries to maintain stability in the oil industry to ensure profits. Since 1970 OPEC has controlled approximately one-third to one-half of the world’s oil supply. In 2001 member nations included Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.
Assign Section 3 Assessment as homework or as an in-class activity. **US**: 25D

Have students use the Interactive Tutor Self-Assessment CD-ROM.

### Reading Essentials and Study Guide 9–3

**Name**

**Date**

**Class**

**Chapter 9, Section 3**

**Focus and skills**: pages 319–323

**BIG BUSINESS**

**KEY TERMS AND NAMES**

**Corporation**

an organization owned by many people but operated as if it were a single entity

**Monopolies**

people who own a corporation through shares of ownership

**Trusts**

a legal concept that allows one person to manage another person’s property

**Holding Companies**

a new way of merging businesses that did not violate the laws against owning other companies

**Labor Savers**

mass-produced household devices

**Reading Check**

What techniques did businesses use to consolidate their industries?

**Student Edition TEKS**

**ELA**: Page 322: Gr9/10/11: 10B; Page 323: Gr9/10/11: 1A, 1B, 4A, 4B, 4D, 10A, 10B, 19B, 20B; Gr9: 7I; Gr10/11: 7H

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### Section Quiz 9–3

**Name**

**Chapter 9**

**Date**

**Class**

**Section Quiz 9–3**

**Focus on Chapter 9**

**Focus and skills**: pages 319–323

**BIG BUSINESS**

**KEY TERMS AND NAMES**

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### Chapter 9

**Section 3, 319–323**

**ASSESS**

**MOMENT IN HISTORY**

**LABOR SAVERS**

American inventiveness and the nation’s growing industrial might combined to provide turn-of-the-century consumers with an ever-increasing array of products. Here, a homemaker wields an early electric vacuum cleaner. Mass-produced household devices had a tremendous impact on the lifestyles and buying habits of millions of middle-class Americans. In cities, huge shopping emporiums replaced the cozy dry goods stores of the 1800s. Even rural customers could buy an almost endless variety of merchandise from mail-order catalogues such as Sears, Roebuck and Montgomery Ward.

Before the advent of the electric vacuum cleaner, the ritual of spring-cleaning involved moving furniture aside and taking carpets and rugs outdoors to beat the dust out of them.

**Reading Check**

**Explaining**

What techniques did businesses use to consolidate their industries?

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### INTERDISCIPLINARY CONNECTIONS ACTIVITY

**Economics**

Invite a representative from the Small Business Administration to speak to the class about the impact of small businesses on the community. Ask the speaker to address the basics of how one goes about setting up a small business. As a class, discuss the various ways that businesses can be financed. **L2 ELA**: Gr9/10: 16E; Gr11: 15E
Selling the Product

The vast array of products that American industries churned out led retailers to look for new ways to market and sell goods. N.W. Ayer and Son of Philadelphia, for example, developed bold new formats for advertising. Large display ads with illustrations replaced the small-type line ads that had been standard in newspapers. By 1900 retailers were spending over $90 million a year on advertising in newspapers and magazines sold across the nation. Advertising attracted readers to the newest retail business, the department store.

In 1877 advertisements billed John Wanamaker’s new Philadelphia department store, the Grand Depot, as the “largest space in the world devoted to retail selling on a single floor.” When Wanamaker’s opened, only a handful of department stores existed in the United States; soon hundreds sprang up. Department stores changed the idea of shopping by bringing a huge array of different products together in a large, elegant building. They created an atmosphere that made shopping seem glamorous and exciting.

Chain stores, a group of similar stores owned by the same company, first appeared in the mid-1800s. In contrast to department stores, which offered many services, chain stores focused on thrift, offering low prices instead of elaborate service and decor. Woolworth’s, a chain store that opened in 1879, became one of the most successful retail chains in American history.

To reach the millions of people who lived in rural areas in the late 1800s—far from chain stores or department stores—retailers began issuing mail-order catalogs. Two of the largest mail-order retailers were Montgomery Ward and Sears, Roebuck. Their huge catalogs, widely distributed through the mail, used attractive illustrations and friendly descriptions to advertise thousands of items for sale.

Checking for Understanding

1. Define: corporation, economies of scale, fixed costs, operating costs, pool, vertical integration, horizontal integration, monopoly, trust, holding company.
2. Identify: stockholder, stock, Andrew Carnegie, Bessemer process.
3. List the new methods of advertising and selling that helped push consumer goods in the late 1800s.

Reviewing Themes

4. Economic Factors What factors allowed corporations to develop in the United States in the late 1800s?
5. Forming an Opinion Do you think an individual today can rise from “rags to riches” like Andrew Carnegie did? Why or why not?
6. Organizing Use a graphic organizer like the one below to list ways business leaders in the late 1800s tried to eliminate competition.

Analyzing Visuals

7. Analyzing Photographs Study the photograph on page 322 of a woman using an early electric vacuum cleaner. How would you compare this to today’s vacuum cleaners? How do you think new mass-produced appliances such as this one affected the lives of women in this era?

Reading Check

Identifying What innovations did retailers introduce in the late 1800s to sell goods to consumers?

Writing About History

8. Expository Writing Write a newspaper editorial in which you explain why entrepreneurs such as John D. Rockefeller and Andrew Carnegie were a positive or a negative force on the U.S. economy in the late 1800s.

SECTION 3 ASSESSMENT ANSWERS

1. Terms are in blue. US: 25A
2. stockholder (p. 320), stock (p. 320), Andrew Carnegie (p. 320), Bessemer process (p. 321) US: 19B
3. large display ads in newspapers, department stores, chain stores, mail-order catalogs
4. general incorporation laws
5. Students’ answers will vary. US: 19B, 24G
7. today’s are lighter; gave women more leisure time US: 23B
8. Editorials should use clear arguments. US: 25D
FOCUS

In 1870 the Standard Oil Company of Ohio was one of 26 oil refineries in Cleveland. Although it was the largest refinery in Cleveland, it processed only 2 or 3 percent of all the crude oil produced in the United States. Over the next 10 years, John D. Rockefeller gained control of over 90 percent of the oil refining in the U.S. through mergers, elimination of competition, and the use of rebates to lower shipping costs. In 1899 George Rice complained to the U.S. Industrial Commission.

TEACH

Discussing an Issue  Ask students to look at the current economic environment and discuss the pros and cons of the chief advantages listed by John D. Rockefeller as they relate to another industry, such as the airlines, computers, cell phones, or health care. L2 US: 28, 24B; ELA: Gr9/10: 16E; Gr11: 15E

you don’t say...

Board of Trustees  Even though it is now illegal to operate a business as a trust, many corporations continue to refer to the group who directs the business as the “board of trustees.”

From John D. Rockefeller’s testimony

Question:  To what advantages, or favors, or methods of management do you ascribe chiefly the success of the Standard Oil Company?
Answer [Rockefeller]: I ascribe the success of the Standard to its consistent policy to make the volume of its business large through the merits and cheapness of its products. It has spared no expense in finding, securing, and utilizing the best and cheapest methods of manufacture. It has sought for the best superintendents and workmen and paid the best wages. It has not hesitated to sacrifice old machinery and old plants for new and better ones. It has placed its manufactories at the points where they could supply markets at the least expense. It has not only sought markets for its principal products, but for all possible by-products, sparing no expense in introducing them to the public.

Answer: It has not hesitated to invest millions of dollars in methods of cheapening the gathering and distribution of oils by pipe lines, special cars, tank steamers, and tank wagons. . . .

Question:  What are, in your judgment, the chief advantages from industrial combinations—(a) financially to stockholders; (b) to the public?
Answer: All the advantages which can be derived from a cooperation of person and aggregation of capital. . . . It is too late to argue about advantages of industrial combinations. They are a necessity. And if Americans are to have the privilege of extending their business in all the States of the Union, and into foreign countries as well, they are a necessity on a large scale, and require the agency of more than one corporation. Their chief advantages are:

1. Command of necessary capital.
2. Extension of limits of business.
3. Increase the number of persons interested in the business.
4. Economy in the business.
5. Improvements and economies which are derived from knowledge of many interested persons of wide experience.
6. Power to give the public improved products at less prices and still make a profit from stockholders.
7. Permanent work and good wages for laborers.

Extending the Content

Point of View  Historians disagree about some of the issues surrounding the business practices employed by John D. Rockefeller and the Standard Oil Trust. For example, while it was common practice for the railroads to offer rebates to big shippers in a variety of industries, some historical accounts indicate that in addition to rebates, Rockefeller got inside information from the railroads about the business activities of his competitors. Discrepancies can also be found in historical accounts of the business practices of George Rice. Some accounts characterize Rice as a reputable businessman, while others paint him as a charlatan and con man.
From George Rice’s testimony

I am a citizen of the United States. . . . Producer of petroleum for more than 30 years, and a refiner of same for 20 years, but my refinery has been shut down during the past 3 years, owing to the powerful and all-prevailing machinations of the Standard Oil Trust, in criminal collusion and conspiracy with the railroads to destroy my business of 20 years of patient industry, toil, and money in building up, wholly by and through unlawful freight discriminations. I have been driven from pillar to post, from one railway line to another, for 20 years, in the absolutely vain endeavor to get equal and just freight rates with the Standard Oil Trust, so as to be able to run my refinery at anything approaching a profit, but which I have been utterly unable to do. I have had to consequently shut down, with my business absolutely ruined and my refinery idle. This has been a very sad, bitter, and ruinous experience for me to endure, but I have endeavored to the best of my circumstances and ability to combat it the utmost I could for many a long waiting year, expecting relief through the honest and proper execution of our laws, which have as yet, however, never come. . . . Outside of rebates or freight discriminations I had no show with the Standard Oil trust, because of their unlawfully acquired monopoly, by which they could temporarily cut only my customers’ prices, and below cost, leaving the balance of the town, nine-tenths, uncut. This they can easily do without any appreciable harm to their general trade, and thus effectually wipe out all competition, as fully set forth. Standard Oil prices generally were so high that I could sell my goods 2 to 3 cents a gallon below their prices and make a nice profit, but these savage attacks and cuts upon my customers’ goods, and their consequent loss, plainly showed them their power for evil, and the uselessness to contend against such odds, and they would buy no more of my oil. . . .

Understanding the Issue

1. What potential advantages could companies like Standard Oil offer consumers?
2. What did George Rice believe to be the reason Standard Oil was so successful?
3. How would you assess the credibility of the two accounts?

Activities

1. Investigate Today many industries, unions, and special interest groups lobby Congress for favorable legislation. What are the most powerful groups? How do they operate?
2. Check the News Are there any companies that recently have been investigated for unfair or monopolistic practices? Collect headlines and news articles and create a bulletin board display.

Writing an Essay  Have students write an essay expressing their point of view on the controversy described in this passage. Instruct them to include enough background information in the essay so that someone who is not familiar with this topic will be able to understand the main ideas. Students may consult one of the popular weekly newsmagazines to see examples of well-written essays. Be sure they express their opinions in the essay. US: 24A–D, 25A–D; ELA: Gr9/10/11: 1A, 1B, 4A–D, 4F, 8A, 8B
Section Overview
This section focuses on the formation of labor unions during the late 1800s.

Main Idea
In an attempt to improve their working conditions, industrial workers came together to form unions in the late 1800s.

Reading Strategy
Sequencing As you read about the increase of American labor unions in the late 1800s, complete a time line similar to the one below by filling in the incidents of labor unrest discussed and the results of each incident.

1877
1886
1894
1903
Great Railroad Strike
American Federation of Labor founded
Pullman Strike
Women’s Trade Union League founded

Reading Objectives
• Describe industrial working conditions in the United States in the late 1800s.
• List the barriers to labor union growth.

Section Theme
Individual Action People like Samuel Gompers and Mother Jones strove to balance the power of corporations with the needs of workers.

An American Story
On September 6, 1869, hundreds of miners’ wives and children heard the repeated shrill blasts of the Avondale Mine’s whistle, which signaled an accident. The families ran to the mine’s entry and beheld a terrifying sight: hot smoke billowing from the mine shaft. The owners of the Avondale Coal Mine in Luzerne County, Pennsylvania, had not built a second entrance. Without an escape route, the 179 miners trapped below soon died.

Songs to commemorate the disaster later gave voice to the silenced victims:

“And as their souls ascended
To God who gave them breath
They plead against the company
Whose greed had caused their death”

Following the deaths at Avondale, John Siney, an Irish immigrant and union leader, urged his fellow miners to unionize:

“Men, if you must die with your boots on, die for your families, your homes, your country, but do not longer consent to die like rats in a trap. . . .”

—quoted in Labor’s Untold Story

Working in the United States
Life for workers in industrial America was difficult. As machines replaced skilled labor, work became monotonous. Workers had to perform highly specific, repetitive tasks and could take little pride in their work. In addition, working conditions were
often unhealthy and dangerous. Workers breathed in lint, dust, and toxic fumes. Heavy machines lacking safety devices caused a high number of injuries.

Despite the difficult working conditions, industrialism brought about a dramatic rise in the standard of living. While only a few entrepreneurs became rich, real wages earned by the average worker rose by about 50 percent between 1860 and 1890.

Despite the rise in the standard of living, the uneven division of income between the wealthy and the working class caused resentment among workers. In 1900 the average industrial worker made approximately $22 per hour and worked an average of 59 hours per week.

At the same time, an economic phenomenon of the late 1800s made relations between workers and employers even more difficult. Between 1865 and 1897, the United States experienced deflation, or a rise in the value of money. Throughout the late 1800s, deflation caused prices to fall, which increased the buying power of workers’ wages. Although companies cut wages regularly in the late 1800s, prices fell even faster, so that wages were actually still going up in buying power. Most workers, however, believed that the companies wanted to pay them less money for the same work, and it made them angry. Eventually, many workers decided that the only way to improve their working conditions was to organize unions.

Early Unions

There were two basic types of industrial workers in the United States in the 1800s—craft workers and common laborers. Craft workers had special skills and training. They included machinists, iron molders, stonecutters, glassblowers, shoemakers, printers, carpenters, and many others. Craft workers generally received higher wages and had more control over how they organized their time on the shop floor. Common laborers had few skills and received lower wages.

In the 1830s, as industrialism began to spread, craft workers began to form trade unions—unions limited to people with specific skills. By the early 1870s, there were over 30 national trade unions in the United States. Among the largest and most successful were the Iron Molders’ International Union, the International Typographical Union, and the Knights of St. Crispin—the shoemakers’ union.

Industry Opposes Unions

Employers were often forced to recognize and negotiate with trade unions because they represented workers whose skills they needed. However, employers generally regarded unions as illegitimate conspiracies that interfered with their property rights. Owners of large corporations particularly opposed industrial unions, which united all craft workers and common laborers in a particular industry.

Companies used several techniques to prevent unions from forming. They required workers to take a cut in pay and, if so, why? Discuss why present-day companies ask employees to take pay cuts. L1 US: 2B, 24B; ELA: Gr9: 7H; Gr9/10: 16E; Gr10/11: 7G; Gr11: 15E

Analyzing Information

Read the following quote by George Pullman: “Last year [1892], I made only 4.5 percent profit and this year it will be less than 4 percent. I am entitled to make more money than that. My workers will have to take a pay cut.” Ask: Was Pullman justified in asking his workers to take a cut in pay and, if so, why? Discuss why present-day companies ask employees to take pay cuts. L1 US: 2B, 24B; ELA: Gr9: 7H; Gr9/10: 16E; Gr10/11: 7G; Gr11: 15E

Reading Check

Describing

What aspects of industrial life caused frustration for workers in the late 1800s?

Early Unions

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Unsafe Working Conditions

Workers in the late 1800s often faced unsafe working conditions. Many began to join labor unions in an attempt to improve these conditions. What unsafe conditions does this photograph of a steel mill show?

COOPERATIVE LEARNING ACTIVITY

Organizing a Union

Organize students into two groups. Designate one group as the employers and have them decide what they would tell their employees to keep them from joining a union. Ask the other group to be union organizers, and have them decide what they would tell workers about the advantages of joining a union. Have each group develop a list of talking points. Have several members of each group present their arguments to the class. Discuss the long-range economic and social effects of labor unions. US: 2B, 22C, 26A; ELA: Gr9/10/11: 4D, 4F; Gr9/10: 16E; Gr11: 15E

Use the rubric for a cooperative group management plan on pages 71–72 in the Performance Assessment Activities and Rubrics.
CHAPTER 9
Section 4, 326–331

Organizing Information

Students should include as United States in the late 1800s. Facing immigrants coming to the below to categorize the obstacles organizer similar to the one shown above.

DIRECTIONS:

1. If workers formed a union, companies often used a to break it. 
2. In 1900 the average industrial worker made approximately an .
3. Workers who tried to organize a union or strike were fired and placed on a —a list of “troublemakers.” Once blacklisted, a laborer could get a job only by changing residence, trade, or even his or her name.
4. Once they organized their time on the shop floor, workers who wanted to organize a union faced several major problems. There were no laws giving workers the right to organize or requiring owners to negotiate with them. Courts frequently ruled that strikes were “conspiracies in restraint of trade,” for which labor leaders might be fined or jailed.
5. Unions also suffered from the perception that they threatened American institutions. In the late 1800s, the ideas of Karl Marx, called Marxism, had become very influential in Europe. Marx argued that the basic force shaping capitalist society was the class struggle between workers and owners. He believed that workers would eventually revolt, seize control of the factories, and overthrow the government.

Marxists claimed that after the revolution, the government would seize all private property and create a socialist society where wealth was evenly divided. Eventually, Marx thought, the state would wither away, leaving a Communist society where classes did not exist. Marxism strongly shaped the thinking of European unions. While many labor supporters agreed with Marx, a few supported anarchism. Anarchists believe that society does not need any government. At the time, some believed that with only a few acts of violence, they could ignite a revolution to topple the government. In the late 1800s, anarchists assassinated government officials and set off bombs all across Europe, hoping to trigger a revolution.

As Marxist and anarchist ideas spread in Europe, tens of thousands of European immigrants began arriving in the United States. Nativism—anti-immigrant feelings—was already strong in the United States. As people began to associate immigrant workers with revolution and anarchism, they became increasingly suspicious of unions. These fears, as well as the government’s duty to maintain law and order, often led officials to use the courts, the police, and even the army to crush strikes and break up unions.

Political and Social Opposition

Workers who wanted to organize a union faced several major problems. There were no laws giving workers the right to organize or requiring owners to negotiate with them. Courts frequently ruled that strikes were “conspiracies in restraint of trade,” for which labor leaders might be fined or jailed.

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The Great Railroad Strike of 1877 In 1873 a severe recession known as the Panic of 1873 struck the American economy and forced many companies to cut wages. In July 1877, as the recession continued, several railroads announced another round of wage cuts. This triggered the first nationwide labor protest. The strikes, supported by the Knights of Labor, eventually involved several railroads. The strike was met with violent responses from the government. The governments of several states called out their militias to stop the violence. In many places, gun battles erupted between the militia and striking workers. Despite the violence, the strike eventually collapsed. By the late 1870s, enough workers had joined a labor union. By the late 1870s, enough workers had joined a labor union.

The Knights of Labor The failure of the Great Railroad Strike convinced many labor organizers that workers across the nation needed to be better organized. By the late 1870s, enough workers had joined a new organization, the Knights of Labor, to make it the first nationwide industrial union. The Knights called for an eight-hour workday and the eight-hour workday. 

The governors of several states called out their militias to stop the violence. In many places, gun battles erupted between the militia and striking workers. Determined to stop the violence, President Hayes ordered the army to open the railroad between Philadelphia and Pittsburgh. He then sent troops to Chicago, where the strike had paralyzed the entire city. The troops restored order, but by the time the strike ended, more than 100 people lay dead, and millions of dollars of property had been destroyed.

Hard Work Strict rules were enforced in the workplace in the late 1800s. Many bosses forbade singing, drinking, joking, smoking, or conversation on the job. They also denied immigrant workers time to celebrate their national holidays and holy days, and they did not accommodate workers who did not want to work on the Sabbath.

INTERDISCIPLINARY CONNECTIONS ACTIVITY

Economics Have students use magazines to create a collage of today’s American workforce. Instruct students to insert text callouts to highlight how today’s workforce is similar to and different from the workforce of the late 1800s. L1 US: 24B, 25C, 25D; ELA: Gr9/10/11: 21B, 21C

Student Edition TEKS

Study Guide 9

Section Quiz 9-4

DIRECTIONS: Write the correct letters in the blanks.

Column A

Column B

A. a method used by employers to prevent unions from forming and list of people who tried to organize a union or strike and were considered trouble-makers by employers. They also supported arbitration, a process in which an impartial third party helps workers and management reach an agreement.

In the early 1880s, the Knights began to use strikes, and they achieved great success initially. After striking, Knights convinced one of Jay Gould’s railroads to reverse wage cuts in 1885, membership in the union leapt from 100,000 to 700,000 in less than a year. The following year, 1886, marked the peak of their success. In the spring of that year, an event known as the Haymarket Riot undermined the Knights’ reputation, and the union rapidly declined.

The Haymarket Riot In the early 1880s, the movement for an eight-hour workday began to build support. In 1886 organizers called for a nationwide strike on May 1 to show support for the issue. On that date, strikes took place in many cities, including Chicago.

On May 3, a clash between strikers and police in Chicago left one striker dead. The next evening, an anarchist group organized a meeting in Chicago’s Haymarket Square to protest the killing. Around 3,000 people gathered to hear the speeches. When police entered the square, someone threw a bomb. The police opened fire, and workers shot back. Seven police officers and four workers were killed.

Police arrested eight people for the bombing. Seven of those arrested were German immigrants and advocates of anarchism. The incident horrified people across the country.

No one knew who threw the bomb. Although the evidence was weak, all eight men were convicted, and four were later executed. Unfortunately for the Knights of Labor, one of the men arrested was a member of the union. The incident badly hurt the Knights’ reputation, and they began to lose members rapidly.

The Pullman Strike Although the Haymarket Riot set back the drive to create industrial unions, other labor organizers continued their efforts. In 1893 railroad workers created the American Railway Union (ARU) under the leadership of Eugene V. Debs. One of the companies the ARU unionized was the Pullman Palace Car Company.

The Pullman Company was based in Illinois. It had built a town named Pullman near its factory and required its workers to live in the town and to buy goods from company stores. In 1893 a depression struck the United States, causing the Pullman Company to slash wages. The wage cuts made it difficult for workers to pay their rent or the high prices at the company stores. In May 1894, after Pullman fired three workers who complained, a strike began.

In support, the ARU stopped handling Pullman cars all across the United States. The boycott of Pullman cars tied up railroads and threatened to paralyze the economy. Determined to break the union, railroad managers arranged for U.S. mail cars to be attached to the Pullman cars. If the strikers refused to handle the Pullman cars, they would be interfering with the U.S. mail, a violation of federal law. President Grover Cleveland then sent in troops, claiming it was his responsibility to keep the mail running. When a federal court issued an injunction ordering the union to halt the boycott, the strike at Pullman and the ARU both collapsed.

The American Federation of Labor

Although large-scale industrial unions generally failed in the late 1800s, trade unions continued to prosper. In 1886 delegates from over 20 of the nation’s trade unions organized the American Federation of Labor (AFL). The AFL’s first leader was Samuel Gompers. His approach to labor relations—which he called “plain and simple” unionism—helped unions to become accepted in American society.

Gompers believed that unions should stay out of politics. He rejected socialist and communist ideas. Rather, he believed that the AFL should fight for small gains—such as higher wages and better working conditions—within the American system. He was willing to use the strike but preferred to negotiate.

Under Gompers’s leadership, the AFL had three main goals. First, it tried to convince companies to recognize unions and to agree to collective bargaining. Second, it pushed for closed shops, meaning that companies could only hire union members. Third, it promoted an eight-hour workday.

The AFL grew slowly, but by 1900 it was the biggest union in the country, with over 500,000 members. Still, at that time, the AFL represented less than 15 percent of all non-farm workers. All unions, including railroad

CRITICAL THINKING ACTIVITY

Synthesizing Ask students to describe stereotypes associated with unions. Have students then explain how these stereotypes were formed. Then ask students to explain the impact of these stereotypes on the efforts of organized labor. Finally, ask students to evaluate if these stereotypes about unions are still held by people today.
Working Women

Throughout the 1800s, most wage-earning workers in the United States were men. After the Civil War, the number of women wage earners began to increase. By 1900 women made up more than 18 percent of the labor force.

The type of jobs women did outside the home in the late 1800s and early 1900s reflected society’s ideas about what constituted “women’s work.” Roughly one-third of women worked as domestic servants. Another third worked as teachers, nurses, sales clerks, and secretaries. The remaining third were industrial workers, but they were employed in light industrial jobs that people believed appropriate to their gender. Many worked in the garment industry and food processing plants.

Regardless of their employment, women were paid less than men even when they performed the same jobs. It was assumed that a woman had a man helping to support her, either her father or her husband, and that a man needed higher wages to support a family. For this reason, most unions, including the AFL, excluded women.

In 1903 two woman labor organizers, Mary Kenney O’Sullivan and Leonora O’Reilly, decided to establish a separate union for women. With the help of Jane Addams and Lillian Wald—the founders of the settlement house movement—they established the Women’s Trade Union League (WTUL), the first national association dedicated to promoting women’s labor issues. The WTUL pushed for an eight-hour day, the creation of a minimum wage, an end to evening work for women, and the abolition of child labor. The WTUL also collected funds to support women on strike.

**Reading Check**

What AFL policies contributed to its growth as a union?

**Enrich**

**Analyzing Photographs**

Examine the photograph at the top of this page of workers in a watch factory. Most of the people in the picture are women. What do you notice about their working conditions?

Answer: light industrial work that did not involve heavy machinery.

**Writing About History**

8. Persuasive Writing Imagine that you are an American worker living in one of the nation’s large cities. Write a letter to a friend explaining why you support or oppose the work of labor unions.

**CLOSE**

Have students describe industrial working conditions in the United States in the late 1800s.

US: 2B, 2C

### TAKS Practice

**SECTION 4 ASSESSMENT**

#### Checking for Understanding

1. Define: deflation, trade union, industrial union, lockout, Marxism, arbitration, closed shop.

2. Identify: blacklist, Knights of Labor.

3. List the groups of workers represented by the Knights of Labor and the American Federation of Labor.

4. Individual Action What political contribution did Mary Harris “Mother” Jones make to American society?

#### Critical Thinking

5. Analyzing Why did early labor unions fail?

6. Organizing Use a graphic organizer similar to the one below to list the factors that led to an increase in unions in the late 1800s.

#### Analyzing Visuals

7. Analyzing Photographs Examine the photograph at the top of this page of workers in a watch factory. Most of the people in the picture are women. What do you think the jobs were of the men in the photograph?

#### Writing About History

8. Persuasive Writing Imagine that you are an American worker living in one of the nation’s large cities. Write a letter to a friend explaining why you support or oppose the work of labor unions.

**SECTION 4 ASSESSMENT ANSWERS**

1. Terms are in blue. US: 25A

2. blacklist (p. 328), Knights of Labor (p. 329) US: 2B

3. industrial workers, trade workers US: 2B

4. She became a key organizer for the United Mine Workers union. US: 21D

5. confrontations led to violence, courts ruled against them, frequent strikes, fought for many things all at the same time, blacklisting US: 2B, 24B

6. concern about working conditions, concern about pay, concern about job security, economic challenges such as deflation US: 2B, 25C

7. managers or supervisors

8. Students’ letters will vary. Letters should express a point of view. US: 24G, 25D
Reviewing Key Terms
Students’ answers will vary. The pages where the words appear in the text are shown in parentheses.
1. gross national product (p. 308)
2. laissez-faire (p. 310)
3. entrepreneur (p. 310)
4. time zone (p. 316)
5. land grant (p. 317)
6. corporation (p. 320)
7. economies of scale (p. 320)
8. fixed costs (p. 320)
9. operating costs (p. 320)
10. pool (p. 320)
11. vertical integration (p. 321)
12. horizontal integration (p. 321)
13. monopoly (p. 321)
14. trust (p. 322)
15. holding company (p. 322)
16. deflation (p. 327)
17. trade union (p. 327)
18. industrial union (p. 327)
19. lockout (p. 328)
20. Marxism (p. 328)
21. arbitration (p. 330)
22. closed shop (p. 330)

Chapter Summary
Factors Behind Industrialization
• Abundant natural resources
• Cheap immigrant labor force
• High tariffs that reduced foreign goods
• National communication and transportation networks

Growth of Business
• Little or no government intervention
• Development of pools, trusts, holding companies, and monopolies
• Small businesses could not compete with economies-of-scale of large businesses
• Practices of some big businesses sometimes limited competition

Changing Workplace
• Rural migration and immigration created large, concentrated workforce
• In large-scale industries, low wages, long hours, and dangerous working conditions were common
• First large unions formed but had little bargaining power against large companies

Reviewing Key Facts
24. The United States had an advantage in industrializing due to its resources and large workforce. What resources did the nation have? Why was its workforce large?
25. How did inventions contribute to economic growth in the United States in the late 1800s?
26. How did the federal government encourage railroad companies to construct railroads?
27. What new methods of selling products were developed in the late 1800s?
28. Why did workers try to organize labor unions in the United States in the late 1800s?
29. What were the two basic types of workers in American industry at this time?

Critical Thinking
30. Analyzing Themes: Individual Action List the names and actions of five people who contributed to American economic growth in the late 1800s.
31. Organizing Use a graphic organizer similar to the one below to list the factors that led to making the United States an industrial nation.

Factors Leading to Industrialization

32. Interpreting Primary Sources Americans like Ida Tarbell criticized large corporations such as the Standard Oil Company. In the following excerpt from History of the Standard Oil Company, she warns of the results of Rockefeller’s business practices on the nation’s morality. Read the excerpt and answer the questions that follow:

"Very often people who admit the facts, who are willing to see that Mr. Rockefeller has employed force and fraud to secure his ends, justify him by declaring, ‘It’s business.’ That is, ‘It’s business’ has come to be a legitimate excuse for hard dealing, sly tricks, special privileges. It is a common enough thing to hear men arguing that the ordinary laws of morality do not apply in business.

Critical Thinking
30. Students’ answers will vary. Names may include inventors and industrialists. US: 24B
31. large labor force, inventions, abundant natural resources, free enterprise system US: 2B, 25C; ELA: Gr9/10/11: 4D, 7D
32. a. force and fraud; b. the “it’s just business” attitude that excused immoral actions US: 24A; ELA: Gr9/10/11: 4C, 13B
CHAPTER 9  Industrialization

33. Inventions such as electric power and the automatic loom led to large manufacturing companies and industrialization but created a host of challenges for workers, such as harsh working conditions. This led workers to unite and join labor unions. **US: 2B, 22C, 24B**

**Practicing Skills**

34. a. Working conditions were often unhealthy and dangerous. Workers breathed lint, dust, and toxic fumes. The lack of safety devices in heavy machinery caused a high number of injuries. **b. Students’ answers will vary.** They might suggest that employers were not concerned with the welfare of their workers. **US: 24B; ELA: Gr9: 7H; Gr10/11: 7G**

**Writing Activity**

35. Advertisements should be clearly persuasive yet factually accurate. **US: 25D; ELA: Gr9/10/11: 1A, 1B, 4A, 4B, 4F**

**Chapter Activity**

36. Presentations should contrast the two men’s views about the railroad workers. **US: 24A; ELA: Gr9/10/11: 4C, 11A, 13B**

**Economics and History**

37. a. 1895 and 1900; b. allowed railroads to be built, improving transportation and benefiting industry. **US: 24H; ELA: 9/10/11: 19B, 20B**