

SECTION 3 Step-by-Step Instruction

Objectives

As you teach this section, keep students focused on the following objectives to help them answer the Section Focus Question and master core content.

- Explain what caused urbanization and what life was like in the new industrial cities.
- Compare and contrast the industrial working class and the new middle class.
- Understand how the factory system and mines changed the way people worked.
- Analyze the benefits and challenges of industrialization.

Prepare to Read

Build Background Knowledge L3

Ask students to recall how life changed for rural farmers in the 1750s. Then ask them to predict what life would be like for those farmers who moved to cities.

Set a Purpose L3

- **WITNESS HISTORY** Read the selection aloud or play the audio.

 **Witness History Audio CD,**
Stench and Sickness

Ask **How did conditions become so bad in industrial cities?** (*The move from the country to cities was rapid. Cities were not prepared to cope with the influx.*) **Why was little done to improve conditions initially?** (*Sample: Working people were poor and powerless to improve their lot.*)

- **Focus** Point out the Section Focus Question and write it on the board. Tell students to refer to this question as they read. (*Answer appears with Section 3 Assessment answers.*)
- **Preview** Have students preview the Section Objectives and the list of Terms, People, and Places.
- **Note Taking** Have students read this section using the Paragraph Shrinking strategy (TE, p. T20). As they read, have students fill in the table listing the benefits and challenges of industrialization.

 **Reading and Note Taking**
Study Guide, p. 177

SECTION 3

Monmouth
Street, London



WITNESS HISTORY AUDIO

Stench and Sickness

As more and more people moved to the cities to work, they had little choice about where to live. There was no public water supply, waste lined the unpaved streets, and disease spread rapidly in these unsanitary conditions. Dr. Southwood-Smith worked in two districts of London and wrote:

“Uncovered sewers, stagnant ditches and ponds, gutters always full of putrefying matter . . . It is not possible for any language to convey an adequate conception of the poisonous condition in which large portions of both these districts always remain, . . . from the masses of putrefying matter which are allowed to accumulate.”

Focus Question What were the social effects of the Industrial Revolution?

Social Impact of the Industrial Revolution

Objectives

- Explain what caused urbanization and what life was like in the new industrial cities.
- Compare and contrast the industrial working class and the new middle class.
- Understand how the factory system and mines changed the way people worked.
- Analyze the benefits and challenges of industrialization.

Terms, People, and Places

urbanization
tenement
labor union

Note Taking

Reading Skill: Understand Effects As you read the section, complete a table that lists benefits and challenges of industrialization.

Industrialization	
Benefits	Challenges
<ul style="list-style-type: none"> • Created jobs • 	<ul style="list-style-type: none"> • Crowded cities •

The Industrial Revolution brought great riches to most of the entrepreneurs who helped set it in motion. For the millions of workers who crowded into the new factories, however, the industrial age brought poverty and harsh living conditions.

In time, reforms would curb many of the worst abuses of the early industrial age in Europe and the Americas. As standards of living increased, people at all levels of society would benefit from industrialization. Until then, working people would suffer with dangerous working conditions; unsafe, unsanitary, and overcrowded housing; and unrelenting poverty.

People Move to New Industrial Cities

The Industrial Revolution brought rapid **urbanization**, or the movement of people to cities. Changes in farming, soaring population growth, and an ever-increasing demand for workers led masses of people to migrate from farms to cities. Almost overnight, small towns around coal or iron mines mushroomed into cities. Other cities grew up around the factories that entrepreneurs built in once-quiet market towns.

The British market town of Manchester numbered 17,000 people in the 1750s. Within a few years, it exploded into a center of the textile industry. Its population soared to 40,000 by 1780 and 70,000 by 1801. Visitors described the “cloud of coal vapor” that polluted

Vocabulary Builder

Use the information below and the following resources to teach the high-use words from this section.

 **Teaching Resources, Unit 4, p. 45; Teaching Resources, Skills Handbook, p. 3**

High-Use Words

contaminated, p. 618

Definitions and Sample Sentences

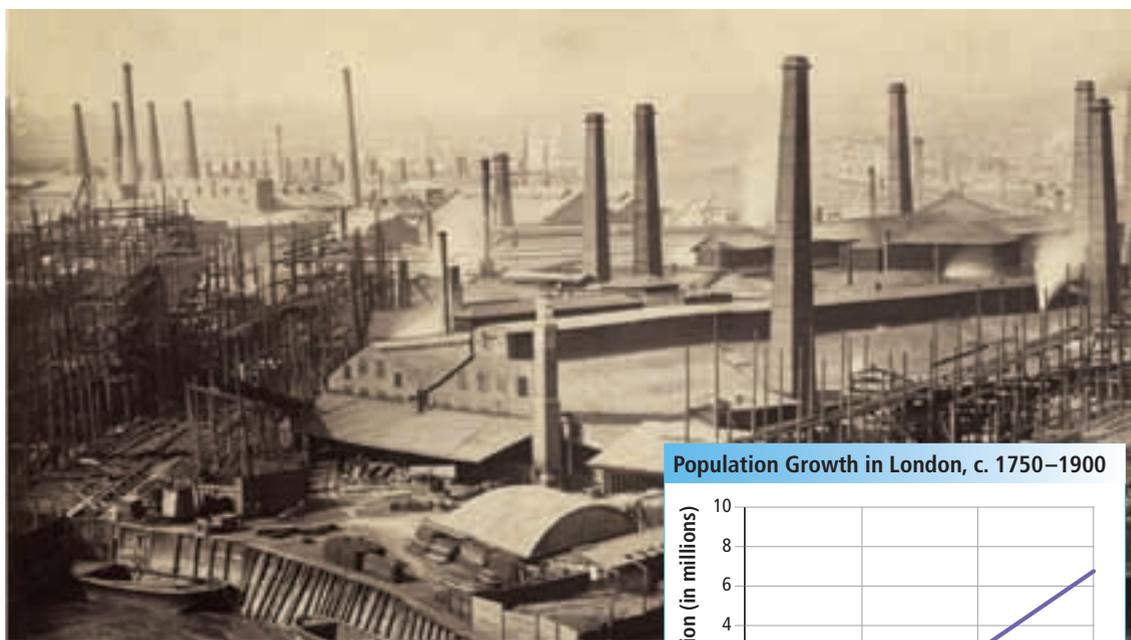
adj. unclean and impure; polluted

You can no longer drink from the river because it is **contaminated** with chemicals from a nearby factory.

stress, p. 618

vt. to emphasize

In her speech, the candidate **stressed** that she had the most experience.



the air, the pounding noise of steam engines, and the filthy stench of its river. This growth of industry and rapid population growth dramatically changed the location and distribution of two resources—labor and people.

✓ Checkpoint What led to the massive migration of people from farms to cities?

New Social Classes Emerge

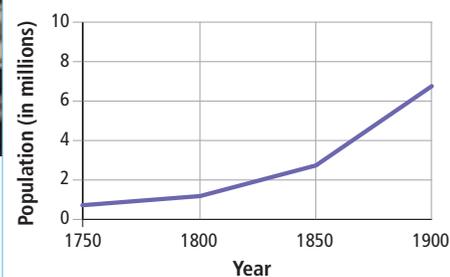
The Industrial Revolution created a new middle class along with the working class. Those in the middle class owned and operated the new factories, mines, and railroads, among other industries. Their lifestyle was much more comfortable than that of the industrial working class.

When farm families moved to the new industrial cities, they became workers in mines or factories. Many felt lost and bewildered. They faced tough working conditions in uncomfortable environments. In time, though, factory and mine workers developed their own sense of community despite the terrible working conditions.

The Industrial Middle Class Those who benefited most from the Industrial Revolution were the entrepreneurs who set it in motion. The Industrial Revolution created this new middle class, or bourgeoisie (boorzhwah ZEE), whose members came from a variety of backgrounds. Some were merchants who invested their growing profits in factories. Others were inventors or skilled artisans who developed new technologies. Some rose from “rags to riches,” a pattern that the age greatly admired.

Middle-class families lived in well-furnished, spacious homes on paved streets and had a ready supply of water. They wore fancy clothing and ate well. The new middle class took pride in their hard work and their determination to “get ahead.” Only a few had sympathy for the poor. Women of the middle class did not leave the home to work but instead focused their energy on raising their children. This contrasted with the

Population Growth in London, c. 1750–1900



Graph Skills Population increased dramatically as factories sprung up in cities such as London (pictured here). How many more people were in London in 1900 than in 1750 according to the line graph?

SOURCE: *International Historical Statistics, Europe 1750–1993, 1998*

Teach

People Move to New Industrial Cities

L3

Instruct

■ **Introduce: Key Terms** Ask students to find the key term *urbanization* (in blue) in the text and explain its meaning. Ask **What were the causes of urbanization in the 1700s?** (*loss of small farms, population growth, demand for workers*) **Do you think urbanization is going on today? If so, why?** (*Yes, for the same reasons.*)

■ **Teach** Display **Color Transparency 118: *In the Black Country*, by Constantin Meunier**. Ask **What aspects of industrialization can you see in this image?** (*crowded city, smokestacks, pollution*) **What do you suppose you would hear and smell in this city?** (*Sample: noise of steam engines, smell of factory pollution*)

Color Transparencies, 118

■ **Analyzing the Visuals** Refer students to the population graph on this page. Ask them to identify the period in which the most growth occurred (*1850 to 1900*). Ask **What factors might cause certain cities to grow larger than others?** (*proximity to transportation, resources, labor, capital, roads, utilities*)

Independent Practice

Link to Literature To help students better understand Britain’s rapid urbanization, have them read the selection from “The Excursion” by William Wordsworth and complete the worksheet.

All in One Teaching Resources, Unit 4, p. 51

Monitor Progress

As students fill in their tables, circulate to make sure they are including both benefits and challenges of industrialization. For a completed version of the table, see

Note Taking Transparencies, 142

Answers

Graph Skills about 6 million

✓ Changes in farming displaced farmers, caused population growth, and increased demand for workers.

Differentiated

Instruction Solutions for All Learners

L1 Special Needs **L2** English Language Learners **L3** Less Proficient Readers

Ask students to work in pairs to create a concept map titled *Social Effects of the Industrial Revolution*. Have them find the main ideas and supporting details for this concept in the text and visuals. Ensure they list growth of cities, growth in population, rise of social classes, and harsh working conditions. Students should summarize this concept using their completed maps.

Use the following resources to help students acquire basic skills:

Adapted Reading and Note Taking Study Guide

- Adapted Note Taking Study Guide, p. 177
- Adapted Section Summary, p. 178

New Social Classes Emerge

L3

Instruct

■ Introduce: Vocabulary Builder

Have students read the Vocabulary Builder terms and definitions. Ask students to predict what became **contaminated**. Then have them read to find out whether their predictions were accurate.

- **Teach** On the board, create two columns, labeled *Industrial Middle Class* and *Industrial Working Class*. Have students take turns listing the characteristics of each class, such as where they lived, where they worked, and what groups they joined.

- **Quick Activity** Display **Color Transparency 117: Tremendous Sacrifice**. Use the lesson suggested in the transparency book to guide a discussion on the results of industrialization.

 **Color Transparencies, 117**

Independent Practice

Link to Literature To help students better understand how industrialization affected the working class, have them read the excerpt from Elizabeth Gaskell's *Mary Barton* and complete the worksheet.

 **Teaching Resources, Unit 4, p. 48**

Monitor Progress

To review this section, ask students to describe the lives and beliefs of a middle-class woman, a working-class child, a Luddite, and a Methodist.

Vocabulary Builder

contaminated—(kun TAM uh nayt id)
adj. unclean and impure; polluted

Vocabulary Builder

stressed—(stresd) *vt.* emphasized

WITNESS HISTORY VIDEO

Watch *In Old New York* on the **Witness History Discovery School™** video program to learn about life during the Industrial Age.



wealthy, who had maidservants to look after their children, and the working class, whose children were a part of the workforce.

The Industrial Working Class While the wealthy and the middle class lived in pleasant neighborhoods, vast numbers of poor struggled to survive in foul-smelling slums. They packed into tiny rooms in **tenements**, or multistory buildings divided into apartments. These tenements had no running water, only community pumps. There was no sewage or sanitation system, so wastes and garbage rotted in the streets. Sewage was also dumped into rivers, which created an overwhelming stench and **contaminated** drinking water. This led to the spread of diseases such as cholera.

Workers Stage Futile Protests Although **labor unions**, or workers' organizations, were illegal at this time, secret unions did exist among frustrated British workers. They wished to initiate worker reforms, such as increases in pay, but had no political power to effect change. Sometimes their frustration led to violence. The first instances of industrial riots occurred in England from 1811 to 1813. Groups of textile workers known as the Luddites (LUD yts) resisted the labor-saving machines that were costing them their jobs. Some of them smashed textile machines with sledgehammers and burned factories. They usually wore masks and operated at night. There was widespread support among the working class for these Luddite groups.

Workers Find Comfort in Religion Many working-class people found comfort in a religious movement called Methodism. This movement was influenced by the Industrial Revolution as people moved to cities and lost connections with their old churches. John Wesley had founded the Methodist movement in the mid-1700s. Wesley **stressed** the need for a personal sense of faith. He encouraged his followers to improve themselves by adopting sober, moral ways.

Methodist meetings featured hymns and sermons promising forgiveness of sin and a better life to come. Methodist preachers took this message of salvation into the slums. There, they tried to rekindle hope among the working poor. They set up Sunday schools where followers not only studied the Bible but also learned to read and write. Methodists helped channel workers' anger away from revolution and toward reform.

- ✓ **Checkpoint** How did members of the working class react to their new experiences in industrial cities?

Life in the Factories and Mines

The heart of the new industrial city was the factory. There, the technology of the machine age and the rapid pace of industrialization imposed a harsh new way of life on workers.

Factory Workers Face Harsh Conditions Working in a factory system differed greatly from working on a farm. In rural villages, people worked hard, but their work varied according to the season. Life was also hard for poor rural workers who were part of the putting-out system, but at least they worked at their own pace. In the grim factories of industrial towns, workers faced a rigid schedule set by the factory whistle.

Answer

- ✓ Some staged futile protests; others turned to Methodism.

History Background

The Peterloo Massacre On August 16, 1819, a crowd of more than 50,000 men, women and children in their Sunday best gathered in St. Peter's Field in Manchester. Speakers argued simply that workers had the right to vote and to be represented in Parliament. At the time, less than five percent of the men—mainly the rich gentry—could vote. Residents of Manchester and other new industrial cities had no representation

at all. Local officials panicked at the size of the crowd. Troops on horseback waved their sabers and charged into the crowd, killing eleven and injuring hundreds. The speakers were arrested. Some were sent to prison for up to two years. Journalists who printed news of the event were also jailed, but one dubbed it the Peterloo Massacre, after the Battle of Waterloo, which had occurred four years earlier.



Life in the Factories and Mines/The Results of Industrialization

13

Instruct

- **Introduce** Have students read the quotation from James Kay-Shuttleworth. Ask **According to Kay-Shuttleworth, how did factory owners view their workers?** (*as machines*) **Why was this view bad for the workers?** (*Unlike machines, they needed rest and protection from injury.*) Ask them to predict what would have to change for conditions to improve.
- **Teach** On the board, create four columns, labeled *Factory Workers*, *Miners*, *Women Workers*, and *Child Laborers*. Using the Numbered Heads strategy (TE, p. T23), have students provide information to fill in the conditions faced by each group.
- **Quick Activity** Show students *In Old New York* from the **Witness History Discovery School™** video program. Ask students **What led to the creation of gangs?** (*crime and poor social conditions*) Ask them to give examples of things that gangs were involved with. (*promotion of political candidates and creation of organized fire brigades*)

Working hours were long, with shifts lasting from 12 to 16 hours, six or seven days a week. Workers could only take breaks when the factory owners gave permission. Exhausted workers suffered accidents from machines that had no safety devices. They might lose a finger, a limb, or even their lives. In textile mills, workers constantly breathed air filled with lint, which damaged their lungs. Those workers who became sick or injured lost their jobs.

The majority of early factory workers were women rather than men. Employers often preferred to hire women workers because they thought women could adapt more easily to machines and were easier to manage. In addition, employers generally paid women half what they paid men.

Factory work created a double burden for women. Their new jobs took them out of their homes for 12 hours or more a day. They then returned to their tenements, which might consist of one damp room with a single bed. They had to feed and clothe their families, clean, and cope with such problems as sickness and injury.

Miners Face Worse Conditions The Industrial Revolution increased the demand for iron and coal, which in turn increased the need for miners. Although miners were paid more, working conditions in the mines were even worse than in the factories. They worked in darkness, and the coal dust destroyed their lungs. There were always the dangers of explosions, flooding, and collapsing tunnels. Women and children carted heavy loads of coal, sometimes on all fours in low passages. They also climbed ladders carrying heavy baskets of coal several times a day.

Children Have Dangerous Jobs Factories and mines also hired many boys and girls. These children often started working at age seven or eight, a few as young as five. Nimble-fingered and quick-moving, they changed spools in the hot and humid textile mills where sometimes they could not see because of all the dust. They also crawled under machinery to repair broken threads in the mills. Conditions were even worse for children who worked in the mines. Some sat all day in the dark, opening

Even children as young as five years old worked in the mines. James Kay-Shuttleworth worked as a physician among the different classes of the Industrial Revolution in Manchester. His profession allowed him to see the working conditions of poor in the cities. How was work in factories and mines different from work on the farm?

Primary Source

“Whilst the engine runs, people must work—men, women, and children are yoked together with iron and steam. The animal machine is chained fast to the iron machine, which knows no suffering and weariness.”
—James Kay-Shuttleworth, 1832



Independent Practice

Viewpoints To help students appreciate different viewpoints about child labor, have them read the selection *Two Views on Child Labor in Factories* and complete the worksheet.

All in One Teaching Resources, Unit 4, p. 47

Monitor Progress

Check Reading and Note Taking Study Guide entries for student understanding.

Differentiated

Instruction Solutions for All Learners

L4 Advanced Readers L4 Gifted and Talented

In the last thirty years, China has been experiencing rapid urbanization and industrialization. About 100 million people have moved from the countryside to the cities. Some observers worry that China is already experiencing some of the challenges of the Industrial Revolution, such as crowded cities, exploited workers,

and pollution. Have students research China’s industrial revolution. Then have them write a report comparing the benefits and challenges of China’s industrialization today to those of Britain’s during the Industrial Revolution.

Answer

PRIMARY SOURCE Workers in the factories and mines had a rigid schedule and worked long hours. They could not take breaks when they wanted as they had on their farms.

Assess and Reteach

Assess Progress

L3

- Have students complete the Section Assessment.
- Administer the Section Quiz.

All in One Teaching Resources, Unit 4, p. 43

- To further assess student understanding, use

 Progress Monitoring Transparencies, 81

Reteach

If students need more instruction, have them read the section summary.

 Reading and Note Taking Study Guide, p. 178

L3

 Adapted Reading and Note Taking Study Guide, p. 178

L1 L2

 Spanish Reading and Note Taking Study Guide, p. 178

L2

Extend

L4

Have students research news articles for information on working conditions today. They should summarize their findings in a short report, comparing past to present.

Answers

- ✓ Men, women, and children worked long hours in unsafe conditions for low pay. Women also had to feed and clothe their families, a double burden.
- ✓ With reforms, it eventually brought the blessings of material benefits and new opportunities, but at first workers lived and worked in wretched conditions and poverty.

and closing air vents. Others hauled coal carts in the extreme heat. Because children had helped with work on the farm, parents accepted the idea of child labor. The wages the children earned were needed to keep their families from starving.

Child labor reform laws called “factory acts” were passed in the early 1800s. These laws were passed to reduce a child’s workday to twelve hours and also to remove children under the age of eight or nine from the cotton mills. Because the laws were generally not enforced, British lawmakers formed teams of inspectors to ensure that factories and mines obeyed the laws in the 1830s and 1840s. More laws were then passed to shorten the workday for women and require that child workers be educated.

- ✓ **Checkpoint** How did the Industrial Revolution affect the lives of men, women, and children?



Families could afford to take trips to such places as the zoo as wages increased.

The Results of Industrialization

Since the 1800s, people have debated whether the Industrial Revolution was a blessing or a curse. The early industrial age brought terrible hardships. In time, however, reformers pressed for laws to improve working conditions. Labor unions won the right to bargain with employers for better wages, hours, and working conditions. Eventually working-class men gained the right to vote, which gave them political power.

Despite the social problems created by the Industrial Revolution—low pay, dismal living conditions—the Industrial Age did have some positive effects. As demand for mass-produced goods grew, new factories opened, which in turn created more jobs. Wages rose so that workers had enough left after paying rent and buying food to buy a newspaper or visit a music hall. As the cost of railroad travel fell, people could visit family in other towns. Horizons widened and opportunities increased.

- ✓ **Checkpoint** Why was the Industrial Revolution seen as both a blessing and a curse?

3 Assessment

Terms, People, and Places

1. What do each of the key terms listed at the beginning of the section have in common? Explain.

Note Taking

2. **Reading Skill: Understand Effects** Use your completed table to answer the Focus Question: What were the social effects of the Industrial Revolution?

Comprehension and Critical Thinking

3. **Analyze Information** How did the Industrial Revolution affect (a) cities and (b) population distribution?
4. **Synthesize Information** Explain how the Industrial Revolution changed the living conditions for both the middle class and the working class.
5. **Demonstrate Reasoned Judgment** Do you think increases in wages justify harsh working conditions? Why or why not?

Progress Monitoring Online

For: Self-quiz with vocabulary practice
Web Code: naa-1931

Writing About History

Quick Write: Gather Details When writing an explanatory essay, you should include facts, examples, and descriptions that help explain your topic. Make a list of details to help explain what life was like when people moved from rural areas to the new industrial cities.

Section 3 Assessment

1. They all have to do with urban life during the Industrial Revolution.
2. It brought rapid urbanization and created a new industrial middle class and industrial working class. It brought material benefits and new opportunities, but also brought great hardships to factory workers and miners, especially women and children.

3. (a) caused cities to grow quickly, becoming overcrowded and polluted (b) caused a population shift from rural to urban areas.
4. It improved life for the middle class, but the working class worked long hours for low pay and lived in wretched conditions.
5. Answers should be supported with reasons.

Writing About History

Responses should include details about crowded tenements, waste, disease, noise, and pollution. Responses must list details, not summarize them.

For additional assessment, have students access **Progress Monitoring Online** at **Web Code naa-1931**.

Friedrich Engels: *The Condition of the Working Class in England in 1844*

In *The Condition of the Working Class in England in 1844*, Friedrich Engels recorded his observations of the wretched living conditions in poor areas of nineteenth-century England. In this excerpt, Engels describes working-class districts in Manchester. He depicts the misery and filth typical of the living areas of industrial workers.

The houses are packed very closely together and since the bank of the river is very steep it is possible to see a part of every house. All of them have been blackened by soot, all of them are crumbling with age and all have broken window-panes and window-frames. In the background there are old factory buildings which look like barracks. On the opposite, low-lying bank of the river, one sees a long row of houses and factories. The second house is a roofless ruin, filled with refuse, and the third is built in such a low situation that the ground floor is uninhabitable and has neither doors nor windows. In the background one sees the paupers'¹ cemetery, and the stations of the railways to Liverpool and Leeds. . . .

The recently constructed extension of the Leeds railway which crosses the Irk at this point has swept away some of these courts and alleys, but it has thrown open to public gaze some of the others. So it comes about that there is to be found immediately under the railway bridge a court which is even filthier and more revolting than all the others. This is simply because it was formerly so hidden and secluded that it could only be reached with considerable difficulty [but is now exposed to the human eye]. I thought I knew this district well, but even I would never have found it had not the railway viaduct [elevated roadway] made a breach² in the slums at this point. One walks along a very rough path on the river bank, in between clothesposts and washing lines, to reach a chaotic group of little, one-storied, one-roomed cabins. Most of them have earth floors, and working, living and sleeping all take place in the one room. In such a hole, barely six feet long and five feet wide, I saw two beds—and what beds and bedding!—which filled the room, except for the fireplace and the doorstep. Several of these huts, as far as I could see, were completely empty, although the door was open and the inhabitants were leaning against the door posts. In front of the doors filth and garbage abounded. I could not see the pavement, but from time to time I felt it was there because my feet scraped it. . . .

1. **pauper** (PAW pur) *n.* poor person

2. **breach** (brech) *n.* break



Friedrich Engels, 1845

Thinking Critically

1. **Draw Inferences** (a) How did the development of the railways affect the working-class districts? (b) How does Engels feel about the living conditions he observes?
2. **Make Generalizations** What seems to be Engels' general attitude toward the Industrial Revolution?

Engels: *The Condition of the Working Class in England in 1844*

Objectives

- Understand living conditions in the new industrial city.
- Describe the hardships of the new industrial working class.

Build Background Knowledge L3

Ask students to recall what they know about the living conditions of the working class in the new industrial cities. Then ask them to speculate on why a writer might choose to describe those conditions.

Instruct L3

- Ask **What is the general condition of the buildings that Engels observes?** (*They are crumbling with age and some lack doors and windows. Many are one-room cabins with earth floors.*) **Why could Engels not see the pavement?** (*It was covered with filth and garbage.*)
- Discuss Engels' reasons for writing this passage. Ask **Why do you think Engels had never seen such sights before?** (*The working-class tenements were in a separate part of the city, away from the middle-class neighborhoods.*) **Who do you think was the target audience for this book?** (*probably upper- or middle-class people who could read and who would not know about the conditions described in Engels' book*)

Monitor Progress L3

Ask students to describe their reaction to the passage. Then ask **What was the author's purpose?** (*to educate readers and persuade them that reforms were needed*) Ask whether they think the work succeeded.

History Background

Friedrich Engels Engels was born in Germany in 1820. His father was the wealthy owner of a textile mill. When Engels moved to a town near Manchester, England, in 1842 he was already interested in radical politics. He took a position in a cotton plant that was partially owned by his father. Engels used his firsthand knowledge of the hardships of factory workers and his excellent writing skills to portray their lives.

Like *Uncle Tom's Cabin*, Engels' book outraged readers. Just four years later, Engels helped Karl Marx write *The Communist Manifesto*, one of the most influential books in history. They both believed that through revolution the new industrial working class would rise to power and transform society. In later years, Engels was a successful businessman (and capitalist) who used his income to support Marx and his writing.

Thinking Critically

1. (a) The railway construction destroyed some areas but opened others to public view. (b) outraged
2. Engels is outraged at the poverty that the working class has suffered in the Industrial Revolution.