

CHAPTER 7

Industrialization

7.1 Free Enterprise and the Rise of Industry

7.2 Industrial and Transportation Revolutions

The United States entered the nineteenth century as an agrarian society and left it as a modern, industrialized society. Advances in industry, transportation, and communications permanently changed how Americans lived and worked and connected far-flung parts of the country.

Analyzing Visuals

This is an illustration of Lockport, New York, in 1839. The town, whose name comes from the locks of the Erie Canal, owes its existence to the construction of America's first "superhighway."

What is the new transportation system in this image? Why was the town named Lockport?



Courtesy Frank E. Sadowski Jr., The Erie Canal (<http://www.eriecanal.org>)

Identifying Cause and Effect

8.13A, 8.13B, 8.27A, 8.29B

Throughout the Industrial Revolution, American society was shaped by a number of related causes. Look at the following causes and effects of events that occurred during this time period.

Cause	Industrial Revolution	Effect
War of 1812	➔	Makes Americans become more economically self-sufficient
Growing population	➔	Creates need for more markets and jobs Spurs industrialization and urbanization
New technology	➔	Improves efficiency Allows rise of factory system
Free enterprise grows	➔	Leads to specialization Sets basis for regional and global trade
Transportation systems improve	➔	Improves movement of goods and people Connects people throughout country
Communications improve	➔	Helps railroad and newspaper industries Connects and informs people

Industrialization

8.13 Economics. The student understands how various economic forces resulted in the Industrial Revolution in the 19th century.

8.13(B) identify the economic factors that brought about rapid industrialization and urbanization

Connected Knowledge and Skills 8.5, 8.12, 8.14, 8.23, 8.27, 8.28

8.12(B) explain reasons for the development of the plantation system, the transatlantic slave trade, and the spread of slavery

8.23(A) identify selected racial, ethnic, and religious groups that settled in the United States and explain their reasons for immigration

8.27(A) explain the effects of technological and scientific innovations such as the steamboat, the cotton gin, and interchangeable parts

important words for concept development				
standard	words new to grade level	previously introduced words		social studies terms
8.12(B)	mill* patent* spread of slavery	demand* economic development* processing of cotton* producer*	production* slavery slaves*	plantation system* Eli Whitney* Cotton gin* South* North*
8.13(B)		capital* economic factors* industrialization* laborers*	manufacturing centers* transportation systems* urbanization	factory system*
8.23(A)	famine* staple food crop*	economic boom* ethnic groups immigration potato crop*	pull factor* racial groups religious groups settled	Irish immigrants* Chinese immigration* The West*
8.27(A)		mass production* scientific innovations technological innovations* transportation of goods*		steamboat* cotton gin* interchangeable parts* Bessemer Steel process*
related vocabulary from supporting standards	minimal government Intrusion/interference* private owners* supply and demand* transport*	economic change factories* factory system* goods* industrialization* manufacturing/ manufactured* marketed political beliefs	property rights religious beliefs social class taxation technological innovation transportation network* urbanization working class*	War of 1812* Free enterprise system (18th and 19th Centuries)* Transcontinental Railroad* “opening” of the west Pacific Railway Act* Telegraph line*

other words related to the content

efficient movement of goods*

fares*

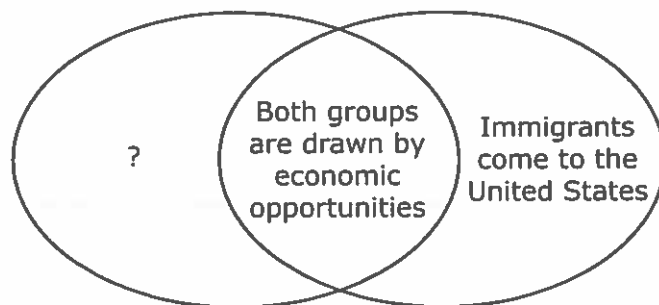
surge*

tourist industry*

Diagnostic Test

Read each question carefully and choose the best answer.

Causes of Urbanization



- 1 Which of the following best completes the diagram above? (8.13B, 8.29B)
- A Explorers discover natural resources
 - B African Americans work on southern plantations
 - C Rural citizens migrate to urban areas
 - D Inventors create new technologies
-
- 2 Because of blockades during the War of 1812 — (8.13B)
- F the American economy went into a depression
 - G the British took over the American economy
 - H American industry became more independent of Europe
 - J agriculture became more important to the economy
-
- 3 During the Industrial Revolution — (8.27B)
- A manufacturing output declined
 - B industry became concentrated in the South
 - C the economy became more based on farming
 - D new technology changed how people worked

As a nation, we began by declaring that "all men are created equal." We practically read it "all men are created equal except negroes." When the Know-Nothings get control it will read "all men are created equal except negroes and foreigners and Catholics."

—Abraham Lincoln, Letter to Joshua Speed, 1855

- 4 In this letter, Lincoln refers to the Know-Nothing Party. He changes the wording of the Declaration of Independence to imply that the party — (8.23B, 8.29D)
- F is faithful to the principles of the Federalist Party
 - G does not uphold the values of the Declaration of Independence
 - H has improved upon the Declaration of Independence
 - J deserves the support of patriotic Americans

Test-Taking Tip

Summarize the quotation in your own words to help you figure out an author's point of view in a primary source. Look for words that suggest either a positive or a negative perspective.

- 5 When the Transcontinental Railroad was completed in 1869 — (8.27B)
- A the East Coast and West Coast were connected
 - B Chinese immigrants began arriving in California
 - C canals stopped being used
 - D settlement decreased in the West

LESSON 7.1

Free Enterprise and the Rise of Industry

How did industrialization and free enterprise grow in the United States?

8.10B, 8.10C, 8.11A, 8.12A, 8.12B, 8.12C, 8.12D, 8.13A, 8.13B

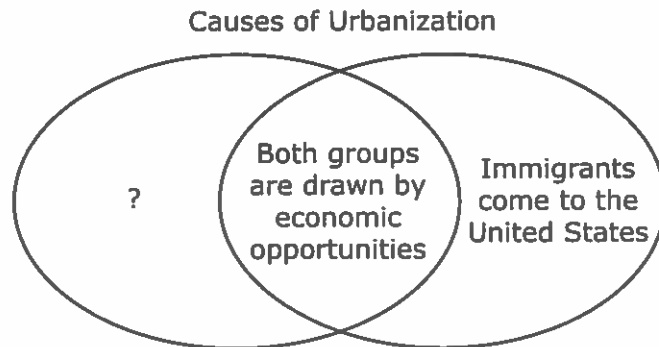
By the early 1800s, the United States was beginning to change from an agrarian society to an industrial society. As it did so, it adopted the free enterprise system as the basis of its economy.

The Beginnings of Industrialization During the early years of the republic, the United States was largely agrarian and imported most of its manufactured goods from Britain. Farming remained important throughout the nineteenth century, and more land was cultivated as the nation expanded westward. By the early 1800s, however, the U.S. economy was also developing manufacturing. The interruption of foreign trade caused by the Embargo Act of 1807 and the War of 1812 encouraged the development of American manufacturing.

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Diagnostic Test Item

8.13B, 8.29B



- 1 Which of the following best completes the diagram above?
- A Explorers discover natural resources
 - B African Americans work on southern plantations
 - C Rural citizens migrate to urban areas
 - D Inventors create new technologies

Explanation

- A is incorrect. Natural resources were important for industrialization but did not directly lead to urbanization.
- B is incorrect. Most African Americans were enslaved and also did not live in urban areas.
- C is correct. Many U.S. citizens left rural areas and migrated to urban areas, just as many immigrants settled in cities. Both groups were drawn by economic opportunities, and this caused urbanization to occur.
- D is incorrect. New inventions did not directly cause urbanization.

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This transformation of the American agrarian society into an industrial society is called **industrialization**. Several factors encouraged industrialization, including a growing population, an abundance of raw materials, improved transportation, money for investment, and new inventions. As industrialization took place, it brought about many changes to the nation's population distribution. Cities developed or expanded near factories and transportation hubs. Urban populations grew as Americans from rural areas and foreign immigrants were attracted by the jobs available in factories.

industrialization
the process by which a farming society becomes an industrial society

Regional Differences In the early 1800s, most industrialization took place in the North, particularly in the northeastern region of the United States. The South remained agrarian, with its enslaved labor force still living on scattered plantations. However, industrialization did affect the South. New inventions and the cultivation of more land caused more output of cash crops, meaning more slaves were needed for labor. As northern industries like textile (cloth-making) manufacturing grew, the South increased the production of certain raw materials to meet those needs.

The enslaved population became more concentrated in cotton-growing areas of the Deep South. As cotton farming spread westward in the region, the slave population also shifted westward. Meanwhile, food-producing farms spread—particularly in the Midwest—to feed growing urban populations and the factory workers who could not produce their own food.

What are the characteristics and benefits of the American free enterprise system? *8.11A, 8.12A, 8.14A, 8.14B*

As industry grew, so did the **free enterprise system**. This is an economic system in which privately-owned businesses develop and compete largely without government intervention.

free enterprise system a system in which privately owned businesses operate largely without government control

The free enterprise system that developed in the late 1700s and early 1800s was a product of the unique history of the United States. It brought many benefits to the rapidly developing nation.

Diagnostic Test Item

8.13B

- 2 Because of blockades during the War of 1812 —
- F** the American economy went into a depression
 - G** the British took over the American economy
 - H** American industry became more independent of Europe
 - J** agriculture became more important to the economy

Explanation

- F** is incorrect. The economy recovered and strengthened as industrialization took place.
- G** is incorrect. The economy became more independent of Britain.
- H** is correct. With trade disrupted, Americans took charge of their own economy.
- J** is incorrect. The economy began to industrialize. Thus, agriculture did not become more important.

entrepreneur a person who starts a business and assumes all risk

laissez-faire economic system in which governments do not interfere with individuals involved in free enterprise

private property things owned by individuals rather than the government

supply and demand an economic law that describes the relationship between a resource and the demand for it

specialization the production of one or just a few goods or services

Characteristics of American Free Enterprise The U.S. Constitution guarantees certain economic rights to Americans. These include the right to own property and the freedom to work as one chooses. These rights support **entrepreneurs**, or people who develop and run businesses with their own money and at their own risk. In the late 1700s, a theory developed that would also encourage free enterprise and entrepreneurship. Called **laissez-faire**, it held that government should not interfere with individuals involved in free enterprise, except to protect their property.

There are four major characteristics of the free enterprise system. First is **private property**, necessary for an individual to engage in business. Second is voluntary exchange, or the idea that individuals buy and sell things freely in a marketplace. Third is the profit motive. Profits are the money that a person or business makes and keeps after covering expenses. Fourth is **supply and demand**. This concept, sometimes called a law, drives free enterprise. Supply is how much the market has of a good; demand is how much consumers want that good.

In a free enterprise system, the relationship between supply and demand determines prices of goods. Prices are also affected by the four simple questions that govern economic activity. These are: What to produce? How to produce it? How many to produce? For whom to produce? The free enterprise system allows individuals and businesses the economic freedom to make financial and other decisions.

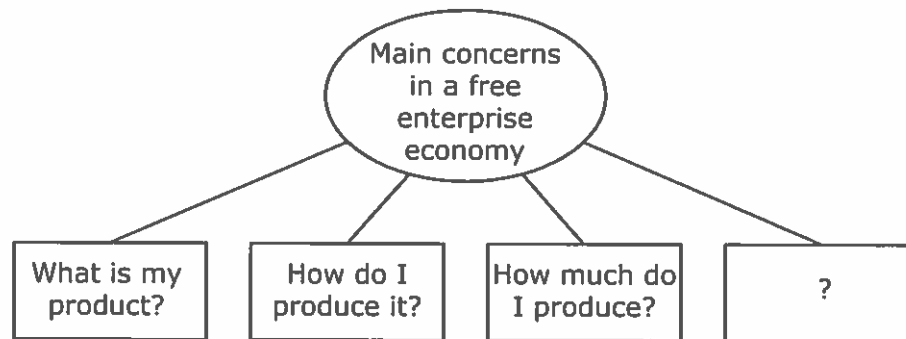
As free enterprise took hold, the economy became more specialized, or focused on making particular products or growing certain businesses. **Specialization** became the basis of foreign trade and trade between different regions of the country. For example, the South specialized in growing cotton, while the North specialized in making textiles, or woven cloth.

Benefits of Free Enterprise The rise of the free enterprise system brought many benefits to the young country. At an individual level, free enterprise meant that there were more goods and services available, at a lower cost, due to competition. It also meant that every American had the opportunity to gain wealth, without undue government interference.

Characteristics of the American Free Enterprise System	
Economic freedom	Americans can choose their type of employment, change employers (or be self-employed), and spend their money as they see fit. Businesses may choose what products to produce and sell and the price for which they will sell them.
Private property rights	People have the right to own and control property and may not be deprived of it without "due process of law."
Profit motive	Persons and businesses are free to improve their economic situation by making money.
Supply and demand	Prices are set according to how much of a good is available (supply) and how much of that good people want to buy (demand).
Voluntary exchange	Consumers and businesses engage freely and willingly in economic transactions.

Read each question carefully and choose the best answer.

- 1 Which of the following occurred mainly in the northeastern region of the United States during the early nineteenth century? (8.12A)
- A Reconstruction
 - B Political sectionalism
 - C Territorial expansion
 - D Industrialization



- 2 Which of the following best completes the diagram above? (8.14B, 8.29C)
- F When will I sell my product?
 - G For whom shall I produce?
 - H Whom will I hire to do the work?
 - J What should I do with my profits?

- 3 Which economic system did Americans of the early republic prefer over the colonial system of mercantilism? (8.14B)
- A Command economy
 - B Industrialism
 - C Socialism
 - D Free enterprise

Speaker 1: The economy works best when the government leaves it alone. Businesses should be able to operate freely without worrying about government interference.

Speaker 2: I agree. The best way the government can help the economy is by protecting our rights to private property. Beyond that, it should not be involved in the economy at all.

- 4 The speakers are expressing support for — (8.14A, 8.29B)
- F socialism
 - G specialization
 - H laissez-faire
 - J workers' rights

- 5 How did the growth of industrialization in the Northeast during the early 1800s most contribute to the expansion of slavery in the South? (8.12B)
- A Factories hired free agricultural workers from the rural South.
 - B A growing northern population consumed more wheat and corn.
 - C The rise of factories increased demand for cotton production.
 - D Declining prices for raw materials forced plantations to expand to remain profitable.

Test-Taking Tip

If you are having trouble understanding a question, break it into parts and focus on what you *do* know. For this question, think about the second half of the sentence and rephrase it: Why did slavery grow in the South? This will help you narrow down which answer might be correct.

- 6 Why is supply and demand important in a free enterprise system? (8.14B)
- F It determines the price of a product.
 - G It controls how much profit a company makes.
 - H It protects the private property of individuals.
 - J It gives consumers more power than producers.

LESSON 7.2

Industrial and Transportation Revolutions

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How did the Industrial Revolution affect life in the United States?

8.10C, 8.11A, 8.12C, 8.13B, 8.23B, 8.27A, 8.28B

By the early 1800s, the United States was rapidly industrializing, and new **technology** was changing how people lived and worked. This period, called the **Industrial Revolution**, had far-reaching effects on the country.

New Technology In the late 1700s, the textile industry in Britain began to be **mechanized**, increasing its efficiency. As a result, Britain needed more raw cotton. That need drove American inventor Eli Whitney to develop the cotton gin in 1793. This machine, which removed the seeds from raw cotton, made growing cotton highly profitable. Over the next few decades cotton farming became the most important economic activity in the American South, and cotton became the country's most valuable export.

Technological and scientific innovations fueled the Industrial Revolution. New technologies created or expanded industries. For example, New England's textile industry benefitted from not only the cotton gin, but also from new spinning machinery and power looms. The region's abundant streams and rivers provided the water power to run the textile factories. In rural areas, farmers benefitted from the development of new equipment. John Deere's steel-tipped plow made it easier to break new land for planting. The mechanical reaper sped up the harvesting of wheat.

The Factory System As people moved from producing goods in their own homes to working in factories, the **factory system** developed. In this system, people worked with machines in large factories designed to speed up the production of goods. Machines were developed to produce standardized, interchangeable parts that could then be assembled as a finished product. The earliest factories in the United States produced textiles.

technology
machinery and tools developed from the application of science to industry

Industrial Revolution
period of transition from agrarian to industrial society

mechanize to perform work using machinery, instead of human or animal labor

factory system
manufacturing goods by machine with workers doing specialized jobs

Diagnostic Test Item

8.27B

- 3 During the Industrial Revolution —
- A manufacturing output declined
 - B industry was concentrated in the South
 - C the economy became more based on farming
 - D new technology changed how people worked

Explanation

- A is incorrect. Manufacturing output increased.
- B is incorrect. Industry became concentrated in the North.
- C is incorrect. The economy moved away from farming to manufacturing.
- D is correct. Technology fueled industrialization and encouraged the factory system.

In 1798, Eli Whitney was awarded a government contract to produce thousands of rifles for the military. To produce the rifles efficiently, he developed a process that manufactured them from identical, interchangeable parts. Such mass production techniques allowed for the manufacture of large quantities of goods at low prices.

In the factory system, workers themselves were, in a sense, also interchangeable parts. They did repetitive, often unskilled tasks. One could be replaced at any time with another. These workers' efficiency was improved with technological innovations. For example, the development of the steam engine increased the speed and efficiency of machinery. All of these factors meant that products could be mass produced, or produced in large numbers quickly.

urbanization the shift of population from rural to urban areas

Urbanization Increased **urbanization** characterized the Industrial Revolution. Cities attracted businesses and grew larger, or cities sprang up around factories. Factories created jobs, and people moved into cities to find employment. Because many factory jobs were unskilled, women and children began to be hired to perform them. Women and girls came to make up a large part of the New England textile labor force. Immigrants also were attracted to urban areas, seeking jobs and economic opportunity. Large numbers of Irish settled in the Northeast.

The rise of cities also saw new forms of entertainment, such as circuses and museums. Immigrants brought new foods and customs that became part of the vibrant culture of many cities. However, cities could be crowded and unsanitary. The risks of fires and disease were high. Factory work itself could be dangerous, and while new housing was constantly being built, it was not always easy to find.

Diagnostic Test Item

8.23B, 8.29D

As a nation, we began by declaring that "all men are created equal." We practically read it "all men are created equal except negroes." When the Know-Nothings get control it will read "all men are created equal except negroes and foreigners and Catholics."

—Abraham Lincoln, Letter to Joshua Speed, 1855

- 4 In this letter, Lincoln refers to the Know-Nothing Party. He changes the wording of the Declaration of Independence to imply that the party —
- F is faithful to the principles of the Federalist Party
 - G does not uphold the values of the Declaration of Independence
 - H has improved upon the Declaration of Independence
 - J deserves the support of patriotic Americans

Explanation

- F is incorrect. Lincoln does not make a comparison to the Federalist Party.
- G is correct. Lincoln believes that the ideas of the Know-Nothings are contrary to American values.
- H is incorrect. Lincoln thinks that they have debased the Declaration of Independence.
- J is incorrect. Lincoln thinks the opposite, believing that patriotic Americans should not support the Know-Nothing Party.

New Discrimination As immigrants, women, and children began working factory jobs, they faced discrimination from men who saw them as competition. Immigrants were targeted because they were willing to work for lower wages. In the 1850s, the Know-Nothing Party attracted support based on its opposition to immigrants and Roman Catholics. Much of the Know-Nothings' hostility was directed at Irish immigrants, most of whom were Catholics. Some American Protestants were biased against Catholics, whom they believed were more loyal to the pope than to U.S. leaders.

How did changes in transportation and communications contribute to industrialization and urbanization?

8.11B, 8.11C, 8.13B, 8.18B, 8.27A, 8.27B, 8.27C, 8.27D, 8.28A

Rapid changes in American **transportation and communication systems** were part of the Industrial Revolution. All of these changes transformed American society and the American economy.

Changing Transportation Systems With cities growing and people migrating on a large scale, the nation needed better ways to transport people and goods. Canals were constructed to move things more efficiently than wagons and pack animals could. The Erie Canal opened in 1825. It connected the agricultural areas of the Midwest with the ports and cities of the East Coast. The canal cut transportation costs and shipping times, encouraged western settlement, and contributed to population growth in the Northeast.

Other innovations in technology continued to improve transportation. The steamboat, invented in the early 1800s, mechanized boats and made them faster. Useful particularly on the wide rivers of the middle-Atlantic states, the steamboat increased trade in that region and contributed to the rise of cities there.

Not every region had waterways suitable for canals. Railroads developed to fill that transportation need. Merchants led the effort to finance and construct the railroads. Cities that were transportation hubs—where several railroads came together—became centers of commerce and experienced rapid growth.

transportation the movement of people and goods from one location to another

communication systems the method of sharing ideas and information

Analyzing Visuals

Technological innovations were not always welcomed. As the railroads began to spread throughout the country, questions arose over how they worked and how safe they were. This poster was circulated in Philadelphia in 1839.

How does the creator of the poster feel about the railroad? How does the poster suggest the railroad will affect American life?



The largest transportation project was the Transcontinental Railroad, built in sections beginning in the mid-1800s and completed in 1869. Ultimately connecting California to the East Coast, the railroad depended on the labor of thousands of Chinese and Irish immigrants, as well as others. It opened up the West for settlement and agriculture. Unfortunately, in the process, it displaced many American Indians.

A Changing Role for Government Federal and state governments were part of the expansion of canals and railroads. They granted land for railroads and access to waterways. They also removed American Indians from their lands to make room for transportation and industry. As canals and railroads expanded and crossed state lines, new questions arose over the roles of local, state, and federal governments.

In 1824, the Supreme Court addressed a shipping rights dispute in a case involving steamboat operators in the states of New York and New Jersey. The case, *Gibbons v. Ogden*, determined that the federal government, not the states, had the sole power to regulate **commerce** between states. The decision reinforced the supremacy of the federal government over state governments.

Communications While the American economy industrialized and urbanized, rapid changes also took place in communications. The telegraph was developed by Samuel Morse in 1837. This device allowed people to communicate with each other over long distances by means of codes sent by electrical signals. The railroads adopted the technology immediately. The telegraph also allowed people who lived far from each other to communicate faster.

Newspapers seized on the telegraph to convey news as it happened. Competition among newspapers contributed to the growth of that industry. Americans in all parts of the nation became better informed as a result.

A Changing Country As the United States shifted from an agricultural to an industrial society based on free enterprise, its economy grew and its society changed. For the first time, thanks to improved transportation and communications, Americans from across the country were connected in ways they had not been before. The Industrial Revolution had set the nation on the path to becoming a modern society.

Gibbons v. Ogden
1824 Supreme Court case which established that only the federal government had the power to regulate commerce between states

commerce the exchange of goods and services

Diagnostic Test Item

8.27B

- 5 When the Transcontinental Railroad was completed in 1869 —
- A the East Coast and West Coast were connected
 - B Chinese immigrants began arriving
 - C canals stopped being used
 - D settlement decreased in the West

Explanation

- A is correct. For the first time, a transportation system linked the two coasts.
- B is incorrect. Chinese immigrants arrived earlier and helped build the railroad.
- C is incorrect. The railroad did not go all the places that canals did.
- D is incorrect. Settlement increased in the West as a result of the railroad.

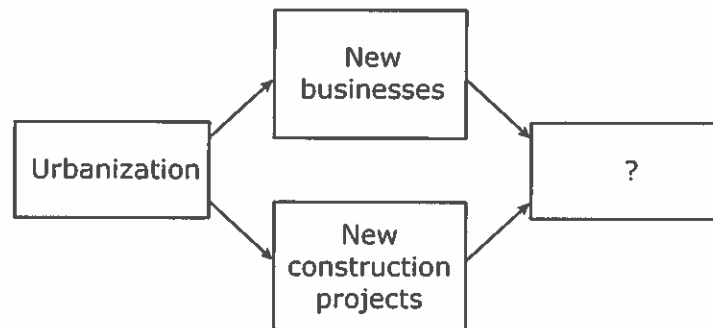
Read each question carefully and choose the best answer.

1 How did the invention of the telegraph affect the U.S. economy?

- A It made businesses more efficient.
- B It decreased the trend of westward migration.
- C It replaced railroads as the primary means of transporting goods.
- D It decreased the need for human labor in factories.

Test-Taking Tip

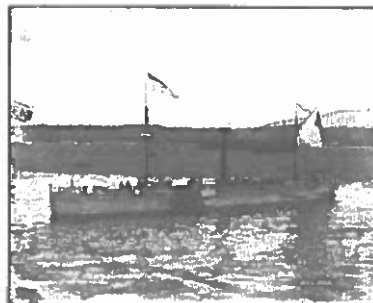
Even if you are not sure which answer is correct, eliminating answers you *know* are wrong or do not make sense can help narrow down your choices.



2 Which of the following best completes the diagram above?

(8.11B, 8.29C)

- F Free market system develops
- G New jobs become available
- H Living conditions improve
- J Reform movements emerge



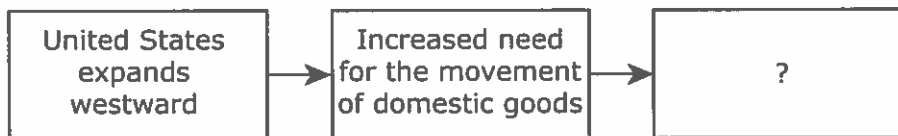
3 The innovation shown in this photograph encouraged industrialization during the nineteenth century by —

(8.27A, 8.29C)

- A increasing the population of western territories
- B making it easier to transport goods over long distances
- C improving communication and spreading ideas
- D increasing the demand for enslaved labor

4 How did the South contribute to industrialization during the nineteenth century? (8.12A)

- F It supplied the North with enslaved labor.
- G It supplied the North with raw materials.
- H It supplied the North with manufactured products.
- J It supplied the North with financial support.



5 Which of the following options best completes the diagram above? (8.10C, 8.29B)

- A Passage of homestead laws to attract settlers to the West
- B Construction of shipping connections such as the Erie Canal
- C United States develops alliances with American Indians
- D Lower tariffs to spur foreign trade in manufactured goods

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Before the nineteenth century, river travel was inefficient. It depended on forces of nature such as currents and wind, which could disrupt travel in unpredicted ways. It also relied on human labor to power boats. These factors made it difficult and even dangerous to travel along rivers.

6 Which innovation most improved the situation described above? (8.27A, 8.29A)

- F The invention of the steamboat
- G The construction of canals
- H The introduction of interchangeable parts
- J The development of electric communication systems

Test-Taking Tip

Remember that wrong answers in a test item are designed to seem appealing. Be careful to avoid letting these incorrect options distract you from the correct answer.

Study Guide and Review

Reviewing Key Terms of the Industrial Revolution

8.11A, 8.11B, 8.14A, 8.14B, 8.14C, 8.18B, 8.27A, 8.27B, 8.27C

Enter the appropriate word(s) to complete the statement.

mechanized	Industrial Revolution	communications	supply and demand
<i>Gibbons v. Ogden</i>	factory system	entrepreneurs	laissez-faire
free enterprise	industrialization	commerce	Eli Whitney
John Deere	Samuel Morse		

- In a _____ system, _____ invest their money and assume all risks.
- The Supreme Court's decision in _____ established the federal government's right to regulate interstate _____.
- The economic law that drives prices is _____.
- In the _____, work is _____ rather than done by hand.
- With increased _____, societies become less agrarian.
- The economic theory of _____ says that individuals should operate businesses with minimal government interference.
- Inventions such as the telegraph revolutionized _____ during the _____.
- The steel-tipped plow, which made it easier to break new land for farming, was invented by _____.
- The telegraph, which used electrical "dots and dashes" to communicate messages over long distances, was developed by _____.
- By developing a system using interchangeable parts, _____ made it possible to produce manufactured items much more quickly.

Match the correct term to each definition.

- | | |
|--|--------------------|
| _____ 11. The shift from rural areas to cities | A private property |
| _____ 12. The application of science to tools and industry | B transportation |
| _____ 13. Things owned by individuals | C specialization |
| _____ 14. The movement of goods and people | D urbanization |
| _____ 15. Production of one or a few goods and services | E technology |

Organizing Information about the Free Enterprise System

8.14B, 8.29B

This chart lets you organize information about components of the free enterprise system. Each of the lettered text boxes below should have a heading. Read the text boxes, and then determine which term listed should be the heading for each box.

Components of the Free Enterprise System

A	B	C	D
The money that a person makes and keeps after covering his or her own expenses	Money, goods, land, or other things owned and controlled by an individual	The law driving the prices of goods; refers to how much the market has of a good and how much consumers want	Individuals selling things freely in a marketplace

- _____ 1. Private property _____ 3. Profit
 _____ 2. Voluntary exchange _____ 4. Supply and demand

Summarizing Changes in Technology during the Industrial Revolution

8.1A, 8.10C, 8.12C, 8.13B, 8.27A, 8.27B, 8.27C, 8.30A

The paragraph summarizes how technology changed during the Industrial Revolution. Look at the list of words below and then read the paragraph. Fill in the blanks with the appropriate words.

cotton gin
transportation
communication

Transcontinental Railroad
urbanization
telegraph

mechanized
Erie Canal
factory system
Industrial Revolution

During the (1.) _____, industries began to be (2.) _____, increasing their efficiency. For example, the cotton industry in the American South was revolutionized by the invention of the (3.) _____. In urban areas, as people moved into factories to work instead of performing work in their homes, the (4.) _____ developed. As people moved into cities looking for factory jobs, (5.) _____ sped up. Better (6.) _____ was needed to move people and goods longer distances. The (7.) _____ opened in 1825 to connect the Northeast with the Midwest. The railroad industry got its start, and in the mid-1850s construction of the (8.) _____ began. With the nation growing, better forms of (9.) _____ were needed to connect people in far-flung areas and spread news and ideas. Newspapers and railroads seized on a new technology, the (10.) _____, to speed communication and increase efficiency.

Post Test

Read each question carefully and choose the best answer.

- 1 In the United States, systems of mass production were first used in the manufacture of — (8.13B)

- A shoes and boots
- B steel plows
- C mechanical reapers
- D cotton cloth

- Invention of the steam engine
- Mechanization of processes
- Introduction of interchangeable parts
- Start of mass production

- 2 All the events listed are most closely associated with the development of — (8.13B, 8.29B)

- F the factory system
- G the domestic system
- H sectionalism
- J interventionism



- 3 The innovation shown in this photograph most affected the population of the United States by — (8.27B, 8.29B)

- A increasing immigration to the United States
- B encouraging westward migration
- C decreasing the populations of northern cities
- D reducing factory development on the East Coast

4 Which of the following helped fuel anti-Irish sentiment in American cities in the nineteenth century?

(8.23B)

- F** The Irish who came to America were often dangerous criminals.
- G** Most Americans still had strong anti-British feelings at the time.
- H** Few American workers were able to compete with them for jobs.
- J** Protestants feared that Irish Catholics were loyal mostly to the pope.

5 During the Industrial Revolution, how did being a transportation center affect the population of certain cities?

(8.27B)

- A** Many urban residents moved to rural areas near rivers to be able to transport their crops.
- B** Unemployment rose as goods could be transported more efficiently.
- C** Cities that were transportation centers became larger because they employed more people.
- D** Mexican immigration increased as demand for transportation workers grew.