

Teacher's Guide For ***Railroads in U.S. History (1830 – 2010)***

For grade 7 – College

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MATERIALS IN THE SERIES

Teacher's Guide – This Teacher's Guide has been prepared to aid the teacher in utilizing materials contained within this series. In addition to this introductory material, the guide contains the following:

- Suggested Instructional Notes
- Student Learning Goals
- Test Questions on Blackline Masters Quizzes for duplication and handout to students
- Timeline of Events, Gallery of Railroad Legends, and Maps

INSTRUCTIONAL NOTES

It is suggested that you preview the series and read the Student Goals and Teacher Points. By doing so, you will become familiar with the materials and be better prepared to adapt the series to the needs of your class. Please note that each program is set up to be played continuously and you will probably find it best to follow the series and the programs in the order in which they are presented, but this is not necessary. Each program can be divided into chapters accessed through the DVD's Menu Screen under Chapter Selects. In this way each chapter can be played and studied separately. Proposed Lesson Plans based on chapter headings accessed through the DVD menu screen can be found with this Teacher's Guide. It is also suggested that the series presentation take place before the entire class and under your direction. As you review the instructional programs outlined in the Teacher's Guide, you may find it necessary to make some changes, deletions, or additions to fit the specific needs of your students. After viewing each program, you may wish to copy the Test Questions on Blackline Masters 1A, 2A, 3A ... and distribute it to your class to measure their comprehension of the events.

INTRODUCTION AND SUMMARY OF SERIES

Railroads in U.S. History (1830 – 2010) is a new approach to presenting the exciting history of America's railroads and how they shaped the economic destiny of the country by establishing the pattern for American's industrial growth in the crucial years from 1830 – 1930; and how they are still vital to American commerce in the 21st century. The series is designed to present the riveting story, *Railroads in U.S. History (1830 – 2010)* in a way that promotes successful student learning. The series begins with the birth of the steam locomotive in England in 1825, and next describes how railroading fever gripped all Americans in the 1830s. It continues with America's first railroad building boom when easterner entrepreneurs built 30,000 miles of track in just two decades (1840-1860), established railroads as the technological industry that would bind all Americans together, and set up the way all American corporations would conduct business for the next 150 years. Next, the series looks at the how railroads changed the nature of warfare during the tragic years of America's great Civil War. It then follows the rise of the depot as the 19th century's great social institution, the development of the Pullman sleeping car and airbrakes, and the building of America's first transcontinental railroad, linking the West coast with the rest of the nation, and truly unifying the country. The series next

discusses the second great railroad boom with the building of four more transcontinental rail lines; the Age of the Robber Barons – entrepreneurs and scalawags who made American railroads the greatest industry of the 19th century and made America the leading country of the Industrial Age; and the Interstate Commerce Act, which introduced Federal Government regulation of railroads in 1887. Finally, the series ends with the consolidation of the vast railroad networks in the early 20th century, the onset of diesel engines replacing steam engines, and relevance of railroads in the 21st century to the economic health of the United States.

The four programs are laid out so they can be viewed in their entirety, or by selecting individual chapters, be viewed separately. Each chapter presents a story. Most importantly, historical themes and figures are clearly presented using state of the art visuals that make learning easy and fun.

Below is a list of the series' programs and their chapters. Using these programs, teachers can create a lesson plan to cover the specific issues, themes and historical figures mentioned.

Program 1: Railroads Come to America (1830-1840)

- The Birth of the Steam Locomotive
- It All Begins: The Baltimore and Ohio
- The Steam Engine

Program 2: The First Great Railroad Boom (1841-1860)

- America's Brand of Capitalism Emerges from Railroad Fever
- Railroads Become Big Business
- America's First Wave of Rail Lines

Program 3: A New Era in American Railroading (1861-1870)

- President Lincoln's Railroad
- Railroads and the Civil War
- Depots, Pullman Cars and Airbrakes
- The Transcontinental Railroad

Program 4: The Second Great Railroad Boom (1871-2010)

- The Railroads Move West
- The Railroad Robber Barons
- The Federal Government Steps In
- Consolidation and the Diesel Engine
- America's Railroads Today

LINKS TO CURRICULUM STANDARDS

The design for this series was guided by the National Center for History in the Schools, United States History curriculum Era 3: Revolution and the New Nation—Standards 1 and 3 for grades 5–12, Era 9 Postwar United States –Standard 4 for grades 5–12, and the

California Public School Standards for Historical Content, Grade 8 – Standards 8.1, 8.2 and 8.3 (#4 – #7), Standard 8.8 (#1) and Grade 11, Standards 11.1 (#2, #3), 11.3 (#5), 11.5 – (#3, #4) and 11.10 (#2, #3) and Grade 12, Standards 12.1, 12.4 and 12.5.

SUMMARY OF PROGRAMS FOR RAILROADS IN U.S. HISTORY (1830 – 2010)

Program 1: Railroads Come to America (1830-1840)

Program one discusses the start of the transportation revolution in America with the birth of the steam locomotive, the first railroad, the Baltimore and Ohio, and how the steam engine works.

Chapter one looks at the first steam locomotive built by George Stephenson and how it captured the imagination of every American.

Chapter two examines the founding of the Baltimore and Ohio Railroad and how it set the tone for revolutionizing American transportation and industry.

How the steam engine works and how Americans would build the best steam engines in the world are examined in chapter three.

Chapter 1: The Birth of the Steam Locomotive

Student Goals – In this *Railroads in U.S. History (1830 – 2010)* chapter the students will learn:

- In 1825 George Stephenson built *Locomotion*, the first steam powered locomotive in England
 - Stephenson also built the *Rocket*, with a top speed of 12 miles per hour
- In America railroad transportation took off as America expanded westward
- Railroading would hold the people of the United States together and mold them into one nation
 - The railroads shaped the American psychology
 - Railroads invented business's bureaucratic system
- Railroads in America started very small with a few lines that didn't go very far
- Railroads would turn out to be the techno-economic base that literally carried America into and through the Industrial Revolution
 - They created the first nationwide techno-infrastructure in the world
 - It took railroads 100 years to create the techno-economic base of America's Industrial Age
 - America's railroads promoted technological innovation and jobs
- Railroads tied the country together
 - They brought the riches of the nation to market from one end of the country to the other
 - Gold from California; lumber from the Pacific Northwest; cattle from Texas; finished goods from the East; and agricultural products from the Midwest and the South
- Railroads turned the country into an industrial powerhouse
- Railroads were the backbone of America's communication's network

- Trains carried the mail
- After the Civil War the train depot became an important social institution
- From the very beginning railroads were an entrepreneur's paradise
 - Anybody with American know-how and hard work could build an empire and make a fortune, and could just as easily lose it all
- Railroading began in 1829 with the Baltimore and Ohio Railroad and its quaint little engine, *Tom Thumb*

Chapter 2: It All Begins: The Baltimore and Ohio

Student Goals – In this Railroads in U.S. History (1830 – 2010) chapter the students will learn:

- The B & O (Baltimore and Ohio) set out to connect Baltimore, Maryland with the Ohio River
 - The B & O was the kind of entrepreneurial vision that was driving the up and coming United States of America
 - The B & O stimulated other railroads to start
 - The story of the B & O is the story of America in the early 19th century
- 1827 was the era of creating transportation from America's interior to its sea coast
 - Canal building in America was big and the biggest canal was the Erie
 - Goods traveled easily from the interior to New York City and vice versa
- Baltimore needed some way to connect to America's heartland
- Philip Evan Thomas and George Brown came up with the plan for the B & O
- The B & O became the first U.S. railway chartered for commercial transport of passengers and freight
- It caused great excitement throughout the nation
- Inventor Peter Cooper proved a railroad could work with his steam-powered locomotive named *Tom Thumb*, designed and built in 1830 for the B & O
- The spur line was introduced to American railroading in 1831
 - That year the B & O built a line from Baltimore to Washington, D.C.
- The connecting glue of railroads binding the nation together would become even stronger in 1843 with the telegraph
 - In 1843, Congress appropriated \$30,000 for construction of a telegraph line between Washington, D.C. and Baltimore
 - The B & O allowed the telegraph line to run along its right of way
 - The railroad would have free use of the line
 - From that point on, railroads and telegraphs would run hand in hand across the nation, tying the country together with words and goods
- The B & O produced railroading's first great fortune with Johns Hopkins
 - Late in life Hopkins turned to philanthropy
- The success of the B & O spurred a frenzy of railroad building in pre-Civil War America
- The B & O reached the Ohio River in 1852 and Cincinnati, Ohio in 1860

Chapter 3: The Steam Engine

Student Goals – In this Railroads in U.S. History (1830 – 2010) chapter the students will learn:

- The locomotive was the symbol of America’s rise to economic power
 - It was the engine that created America’s first billion-dollar industry
 - It was the first truly nationwide American industry
- The steam engine and the railroads defined how Americans would do business
- With the success of the railroads, Americans became enamored of engineering solutions for all economic, political and social problems
- They developed the uniquely American attitude of "We can solve any problem, invent our way out of any predicament"
- Railroads were responsible for creating
 - A national sales market
 - A culture of engineering excellence
 - A modern system of management
 - America's unusually strong financial system
- A description of a locomotive and how it works, including the boiler, the wheels and other accessories
- British built locomotives were not strong enough to fuel American industrialism
 - American railroads had to span vast distances
 - They needed lighter engines that could travel over cheaper, easy to build rail lines
- Eventually American engineers and master mechanics built strong lightweight locomotives
- Leading that charge were three American steam locomotive builders: Norris, Rogers, and the Baldwin Locomotive Works
- The nation now had everything it needed for the Great American railroad boom

Answers to Blackline Master Quiz 1A

1-b; 2-c; 3-c; 4-d; 5-b; 6-a; 7-c; 8-d; 9-a; 10-a

Program 2: The First Great Railroad Boom (1841-1860)

Program two shows how the big business of railroads would create America’s particular brand of capitalism and a vast network of rail lines in the east.

Chapter one tells the story of how railroads built the American industrial economy and established the unique way Americans did business.

Chapter two discusses how the American railroad companies had a remarkable vision that would lead to them setting the tone for American industry in the 19th century.

The development of America’s great eastern railways, the Pennsylvania, the Reading, the Erie, the Rock Island Line and the New York Central are described in chapter three.

Chapter 1: America's Brand of Capitalism Emerges from Railroad Fever

Student Goals – In this Railroads in U.S. History (1830 – 2010) chapter the students will learn:

- By 1827 railroad fever was infecting the nation
 - In 1828 the Baltimore and Ohio gave birth to America's railroad industry
 - The boom that followed on the heels of the B&O's success would build the American industrial economy
 - It would also define the unique way Americans did business
 - Trains would set the pattern for America's singular brand of capitalism
- At first, the North and Midwest had trouble embracing the new technology and the economic possibilities of the railroad
 - Financiers and governments were deeply committed to canals
- The South had few such investments and looked to railroads
 - In 1830, *The Best Friend* of Charleston, South Carolina, became the first scheduled train run in the nation
 - Additional trackage grew slowly in the South, something the South would pay dearly for during the Civil War
- By 1836 the North's railroad boom was on
- Railroads built slowly from one town to the next town
- In the first six years of the railroad boom, some 200 lines were chartered
 - Towns wanted a railroad because that made them more important
 - Farmers could easily ship goods to and receive goods from cities
 - Towns granted easements to railroads in order to bring the railroad to the town

Chapter 2: Railroads Become Big Business

Student Goals – In this Railroads in U.S. History (1830 – 2010) chapter the students will learn:

- By 1840, 3,000 miles of track had been laid and \$75 million invested in railroad companies
- Railroads had a vision that would change America forever
 - They developed a uniquely American way of doing business
 - They saw themselves controlling everything from the land the tracks were laid on, to the locomotives, to the cars, to the schedules
 - A railroad consists of track, right of way, and shops and yards
 - Shops rebuilt engines, passenger and freight cars
 - There were railroad yards to store engines and cars and to load freight
- The railroads set up the middle management system and a similar system for blue collar workers
- Railroads set up a system of financial controls
- The railroads had a statistical knowledge of the performance of the freight yards, of the locomotives, and of their man power
- American railroads invented cost benefit analysis
 - By the 20th century, it was practiced by every major industry in the world
- The railroads also instituted a one-of-a-kind policy of being a common carrier

- Railroads accepted everything and anybody on their trains, within reason
- The railroads in order to get a charter from the government are classified as common carriers
- By the 1840s the iconic profile of the American built steam locomotive appeared
- Railroads gave birth to American engineering excellence
 - Locomotives were the centerpiece of mechanical engineering
 - Bridges and track layout were the centerpiece of civil engineering
- The industry was also developing and standardizing its railroad cars
- Trains first carried passengers because it was easy to do
- Freight cars began with flat cars, then built gondola and box cars
- By 1850 Americans had invested \$300 million dollars in railroads
- New York's Wall Street became the nation's financial center
 - Railroads are the first big money factor in America
 - The stock market is designed primarily to handle railroads
- By the end of the 1850s, American railroads defined big business
 - 30,000 miles of track were put down
 - No other institution was doing business on such a vast scale

Chapter 3: America's First Wave of Rail Lines

Student Goals – In this Railroads in U.S. History (1830 – 2010) chapter the students will learn:

- *Monopoly's* Pennsylvania, Reading, and the B & O railroads were named after great American railroads founded in the first big railroad boom
- The 'Short Line' is a name for small railroad companies that built short railroad lines, most only a few miles long going places big railroads didn't go
- The Baltimore and Ohio was the first railroad
- The Pennsylvania Railroad, founded in 1846, became the standard of excellence in American railroading
 - The original line connected Harrisburg and Pittsburgh, Pennsylvania
 - Eventually the Pennsylvania served a region bounded by New York, Chicago, St. Louis, and Washington, D.C.
 - The Pennsylvania was for many years the largest and richest in the world
 - The Pennsylvania designed and built its own steam locomotives
 - It became a model of standardization for the railroad industry
- The Reading Railroad was originally chartered in Pennsylvania to build a line between Reading and Philadelphia
 - The company made huge profits by hauling coal from mines to cities
 - It was a single-purpose rail line designed to move one kind of resource
 - The practice was copied as railroads moved west
- The Erie Railroad, chartered in 1832, ran from the Hudson River to Lake Erie
 - At the time the Erie Railroad was the longest continuous railroad in the world
- The greatest of the pre-Civil War railroad lines was the New York Central
 - The New York Central was the brainchild of Erastus Corning
 - Corning formed the New York Central in 1853 by combining nine of New York's small feeder lines

- These lines serviced towns along the Erie Canal and the Hudson River and brought goods and passengers down to New York City
- Corning created an economic powerhouse
- The merger set the standard for industrial growth in the U.S. for 150 years
- The merger occurred in New York because Wall Street was the only place in the country with the financial power to pull off such a deal
- Corning went on to become one of the country's leading industrialists
- Corning guided the New York Central until he resigned in 1867
- Two years later, The New York Central would become the flagship of Cornelius Vanderbilt's railroad empire
- Illinois' Rock Island and La Salle Railroad Company was incorporated in 1847
 - It was the first railroad to connect Chicago with the Mississippi River
 - Abraham Lincoln represented the Rock Island Line in an important lawsuit regarding bridges over navigable rivers
 - Railroads become the great bridge builders in America
- America's railroad bridges became the 19th century's engineering wonders of the world
- By 1860, The North and Midwest railroad networks linked every major city
- The South concentrated on short lines linking cotton regions to ocean and river ports
- There was no network of rail lines connecting one part of the South with another
- This lack of a network would become a major handicap during the American Civil War

Answers to Blackline Master Quiz 2A

1-c; 2-b; 3-c; 4-a; 5-d; 6-a; 7-a,c; 8-b; 9-c; 10-d

Program 3: A New Era in American Railroading (1861-1870)

Program three shows how American railroads spurred innovations, changed military tactics and tied the west and east coasts together to make one nation.

Chapter one discusses how the visionary leadership of President Abraham Lincoln would set railroads on a course to change the nation.

How railroads changed the nature of warfare is shown in chapter two.

Chapter three discusses the innovations of Pullman Sleeper Cars, airbrakes and the establishment of the depot as a social institution in small town America.

The history of building the transcontinental railroad is examined in chapter four.

Chapter 1: President Lincoln's Railroad

Student Goals – In this Railroads in U.S. History (1830 – 2010) chapter the students will learn:

- In the American Civil War railroads redefined how wars would be fought

- This new Era in American railroading started with the election of President Abraham Lincoln
- Lincoln understood the importance of railroads and the role they would play in the economic growth of the country
- He had a vision of a national transportation infrastructure based on railroads
- When Lincoln was elected President in 1860, the South seceded and founded the Confederate States of America
 - At the time few understood the importance of railroads would play in war
 - One person was the Confederate general, Stonewall Jackson
 - The North had three times as much track laid as the South
 - The South's lighter gauge tracks were unable to move heavy equipment, horses and men
- For the first time ever railroads would play a decisive role in a war
- Abraham Lincoln pushed through Congress bold legislative acts
 - Creating a railway line connecting the East with California
 - Allowing for the creation of new military track and facilities
 - Authorizing the military to run captured Southern railroad facilities
- General Sherman trained ten thousand troops in railroad repair for his march
- President Lincoln's Railroad led the north to victory in 1865

Chapter 2: Railroads and the Civil War

Student Goals – In this Railroads in U.S. History (1830 – 2010) chapter the students will learn:

- The North was industrial and railroads were a central feature
- The South was agricultural and railroads were a minor feature
- In the beginning the Confederacy was well placed to achieve victory
 - It had superior leadership, strategy, tactics and manpower
 - The South's strategy was to make the North become tired of war
 - This strategy almost worked
- The tide turned with Northern victories at Antietam and Vicksburg
- The Civil War became a railroad war
 - The major role for railroads is the shipment of supplies and soldiers
 - The north could ship soldiers and supplies faster
 - The South's soldiers had to march farther and supplies took too long to get to the battlefield
- A decisive example of this was the battle of Chickamauga in eastern Tennessee
 - The North lost the initial battle but railroads brought reinforcements that turned it into a victory
 - From here, Sherman began his march to Atlanta, Georgia
- Sherman used railroads to move men and supplies
- Atlanta was the Confederate railroad center
- With Atlanta's capture, the Confederacy's railroad system was destroyed
- The South's failed railroads doomed General Lee's cavalry
- With Lee's surrender at Appomattox, the North returned to the vision of an industrialized America supported by railroads

Chapter 3: Depots, Pullman Cars and Airbrakes

Student Goals – In this Railroads in U.S. History (1830 – 2010) chapter the students will learn:

- After the Civil War four changes made railroading America's dominant industry
 - Transcontinental rail lines
 - Pullman Cars
 - The rise of train depots as a major social institution
 - The invention of air brakes
- Airbrakes were railroads' greatest technological innovation
 - Airbrakes replaced the dangerous job of brakemen
- An explanation of how airbrakes work
- Train depots become the public place of the community
 - Hotels and restaurants were near depots
 - Telegraph stations were in depots
 - Shopkeepers got their goods through the freight office
- In larger cities there were union depots where several railroads combined
- With the arrival of the Gilded Age, passengers wanted to travel in style
 - American engineer George Pullman created the Pullman Car
 - The Pullman could run on all of the railroads in the United States
 - Passengers could travel, eat and sleep in comfort

Chapter 4: The Transcontinental Railroad

Student Goals – In this Railroads in U.S. History (1830 – 2010) chapter the students will learn:

- The dream of a transcontinental railroad was as old as the railroads themselves
- When gold was discovered in California in 1848, it became an obsession
- It became a reality during the American Civil War
 - The Union wanted railroads to bring in western gold
 - The Homestead Act of 1862 used railroads to fill in the west
- The transcontinental railroad was an engineering marvel
- It was completed by the Union Pacific and Central Pacific railroad companies
- The Federal government issued bonds and provided land grants
- Republicans saw the future of America as based on railroads
 - This meant opening up the west's farmlands with railroads
- Construction began in earnest after the Civil War
 - The Central Pacific went east out of Sacramento
 - The Union Pacific ran west from Omaha
 - On May 10th 1869, the two railroads met at Promontory Summit, Utah
- Now a journey that had taken six months by wagon train took one week
- The new transcontinental line kicked off a second boom in railroad building
- It also was the Age of the Railroad Tycoons, who were called Robber Barons

Answers to Blackline Master Quiz 3A

1-c; 2-b; 3-d; 4-b; 5-d; 6-a; 7-b; 8-c; 9- a=d, b=c; 10-a

Program 4: The Second Great Railroad Boom (1871-2010)

Program four looks at the second great age of railroads as they moved west of Mississippi River, spanning the continent and building the fortunes and empires of entrepreneurs, known as the Robber Barons. It also examines the federal government's enhanced role in curbing the power of the railroads and the eventual consolidation of railroads at the beginning of the 20th century.

Chapter one depicts how railroads were able to crisscross the vast west.

Chapter two looks at the 19th century's greatest entrepreneurs, the railroad Robber Barons.

How the federal government came to regulate the railroads is discussed in chapter three.

In chapter four the consolidation of the railroads from their zenith at the start of the 20th century to the arrival of the diesel engine in the 1930s is told.

Railroads and their importance to the American economy in the 21st century are discussed in chapter five.

Chapter 1: The Railroads Move West

Student Goals – In this Railroads in U.S. History (1830 – 2010) chapter the students will learn:

- The completion of the first Transcontinental Railroad set off a second great railroad building boom
- The boom was stimulated by two events
 - In 1863 Congress set the standard gauge of railroad tracks at 4' 8.5"
 - Land grants for building railroads
 - The government gave away about 175 million acres of land
- The Union Pacific received over 13 million acres of that free land
- Union Pacific executives also received money from the construction of the track
- By 1893 there would be 4 new transcontinental rail lines
 - Jay Cooke's Northern Pacific
 - J.J. Hill's Great Northern Railway
 - The Atchison, Topeka and Santa Fe Railway
 - Leland Stanford's Southern Pacific

Chapter 2: The Railroad Robber Barons

Student Goals – In this Railroads in U.S. History (1830 – 2010) chapter the students will learn:

- First in time among the Eastern Robber Barons was Cornelius Vanderbilt
 - Vanderbilt made his fortune in steamboats and ocean shipping
 - Vanderbilt turned to railroads since they were the way of the future
 - Vanderbilt founded Vanderbilt University

- Jay Gould, epitomized the worst of the railroad Robber Baron era
 - He used the stock market to amass a personal fortune but never built anything
- J.J. Hill was a careful planner and railroad builder whose famous Great Northern Railway became one of America's longest lived railroad empires
 - Hill's railroad went from Minneapolis to Seattle
 - Hill did not use federal land grants
 - He made his railway profitable by bringing in European farmers
 - Other railroads copied his plan
- The West had its share of Robber Barons, including Colorado's General William Jackson Palmer and Montana's Senator William Clark
 - They built smaller railroads that were resource specific
- William Clark turned Las Vegas into one of America's premier urban centers
 - Clark owned the San Pedro, Los Angeles and Salt Lake Railroad
 - Clark established Las Vegas as a division town for changing crews, locomotives and to repair cars and engines
- William Jackson Palmer founded the Denver and Rio Grande Railroad
 - He introduced narrow gauge track for the western mountains
- At the end of the second building boom, railroad lines saturated the country
 - The Robber Barons now had to earn money from passenger fares and shipping rates
 - As a result, they plunged America into the Era of the Railroad Wars

Chapter 3: The Federal Government Steps In

Student Goals – In this Railroads in U.S. History (1830 – 2010) chapter the students will learn:

- By the 1880s, the railroad industry was no longer the driving force behind America's economic boom
 - But it was still the backbone of the economy
- As monopolies, the railroads controlled the rates
- As a result, a war sprang up between the Robber Barons and the public their railroads served
- By the 1880s railroads were big business
 - The big national railroad companies and smaller regional ones controlled the transportation system of all the states
- Small town America's business owners and farmers asked the Federal Government for help
 - The Government surprised the railroads by helping the little guys
 - The main breakthrough was the Interstate Commerce Commission
 - The ICC standardized information
 - After 1900 Teddy Roosevelt led the charge to give the ICC power to set railroad rates and end secret rebates
- The balance of power between government and business changed forever
- American business and industry would always have the federal government looking over its shoulder

Chapter 4: Consolidation and the Diesel Engine

Student Goals – In this Railroads in U.S. History (1830 – 2010) chapter the students will learn:

- The heyday of railroads' second building boom ended at the start of the 20th century
 - A vast, overbuilt network of rail lines tied the nation together
 - Too many companies, too much track and too much greed were destroying the industry
- The answer was consolidation and Edward H. Harriman had the brains and the ability to make it happen
 - Harriman started with the Union Pacific
 - Harriman increased the size of locomotives, built heavier rails, and improved the amount of tonnage cars could carry
 - Other railroads had to take the same measures to stay competitive
- Railroading was entering a new era by becoming lean and competitive
- With the rise of the automobile and trucks, the railroads began to decline
- The arrival of the diesel engine changed the way railroading worked
 - Shops shut down because diesel engines could go farther
 - Railroads sold off a lot of property

Chapter 5: America's Railroads Today

Student Goals – In this Railroads in U.S. History (1830 – 2010) chapter the students will learn:

- Today, the steam locomotives of 150 years ago rest in graveyards around America
- They are reminders of when they were the workhorses of America's industrial revolution
- Now diesel locomotives carry the load
 - Freight trains have gotten larger, locomotives more powerful
 - While coal is still the single major item moved by trains, modular shipments, including semi-truck trailers, have tripled in the last 20 years
- But the number of class one railroads has fallen from 120 to only seven today
 - These are the Burlington Northern Santa Fe, Canadian National, Canadian Pacific, Consolidated Rail Corporation, CSX Corporation, the Kansas City Southern, Norfolk Southern and the Union Pacific
- There is also Amtrak - the sole rail line in America devoted to passenger travel
- Railroads are still the dominant piece of the nation's transportation infrastructure
- This point was confirmed in 2010 when Warren Buffet bought the Burlington Northern Santa Fe
 - His purchase once again reaffirmed the bond between American capitalism and railroads
 - President Obama affirmed America's commitment to high speed rail

Answers to Blackline Master Quiz 4A

1-b; 2-a; 3-b; 4-a=g, b=e, c=f, d=h; 5-d; 6-a; 7-b; 8-b; 9-b, c; 10-d