

A More Perfect Union

Imagine teachers being able to step into history books with students in such a way that they can experience an immersive living lesson of the 19th Century – the era that dramatically altered and expanded this More Perfect Union – the United States of America. Imagine then that they take the lessons of that era with them back into their classrooms and future lives to build on that learning such that they strive to continue the efforts of our founding fathers to improve this great Union. That is the goal of the Colebrookdale Railroad Preservation Trust in this capital project.

“To know what has come before is to be armed against despair. If the men and women of the past, with all their flaws and limitations and ambitions and appetites, could press on through ignorance and superstition, racism and sexism, selfishness and greed, to create a freer, stronger nation, then perhaps we, too, can right wrongs and take another step toward that most enchanting and elusive destinations: a more perfect Union.”

— Pulitzer Prize-Winning Author and Historian, Jon Meacham, 2018

Over the years, from the drafting of The Constitution, the phrase “A More Perfect Union” has come to mean the continual process of improvement of the country. Three forces transformed the Union between 1860 and the end of the century. First was the Civil War; second was the continuing tide of westward expansion; third was the American Industrial Revolution. Common to all was the railroad. It not only enabled the preservation of the Union, but also permitted the kind of rapid growth that made the United States a world power. Railroads accelerated change, unleashing social, economic, cultural, and technological forces that transformed the landscape, just as they encouraged people and communities to transform themselves through the search for opportunity and freedom.

Photographers, artists, stained-glass makers, architects, musicians, writers, chefs, craftsmen, and general labors of all types, ages, genders, races, wealth, status, and cultures honed their skills and captured the story created by the transcontinental railroad. All these people came together at the central hub – the railroad station. Stations became place-makers: a focal point in each community that served as a setting for community interaction, artistic expression, and a place that fostered a diversity of activity.

The project explores the experiences of the people and specifically several minority groups of railroad travelers and workers from 1800s - today. This project rebuilds a once integrated transit hub into the community it once served through design, museum-quality and historically accurate architecture, cultural programming, public art, and innovative space management. Lesson plans and teacher resource materials will be available for teachers to use in their classrooms or as supplements to their educational fieldtrips to the station. Building on themes of challenge and transformation, each building element will illuminate the story and achievements of the diverse people who were and who became Americans striving to create a more perfect union.

Title: Rails of Revolution: Industrial, American, and Environmental Revolution in the Hearth of Early America

Subject/Course: US History 1869 - Present / Pennsylvania History / Local Government

- Civics and Government, Economics, History
 - Historic Preservation as key element in Environmental Preservation
 - Native American history: lands were populated by Lenni Lenape
- Science and Technology and Engineering Education, History of Technology and Engineering
 - Geology: unique geology of region includes iron-laden ores with low-level magnetic properties, making them easy to find
- Iron Furnaces / Iron Industry
 - John Potts and Potts / Rutter family histories in role of early iron industry in American Revolution
- American Railroads
 - American Transportation
 - Resurgence of American Railroads as Green Transportation Alternative

Grade Level: Grades 4-8

Standards/Eligible Content

Commonwealth of Pennsylvania Standards and Anchors

I. The Pennsylvania Iron Industry: Furnace and Forge of America – Digging, Smelting and Forging: But Why in Pennsylvania?

- 4.3.3.A Identify the natural resources used to make various products
- 4.3.7.A Explain how products are derived from natural resources
 - Describe the process of converting raw materials to consumer goods
 - Differentiate between renewable and nonrenewable resources
- 4.3.10.A Evaluate factors affecting the use of natural resources
 - Evaluate the effect of consumer demands on the use of natural resources
 - Analyze how technologies such as mining, harvesting, and transportation equipment affect the use of our natural resources

II. Typical of industrial managers of the time, many leaders of the railroads operated autocratically, emphasizing profits and giving little consideration to their employees. Wages were cut and worker safety sacrificed, culminating in strikes. (Pennsylvania State Archives, an agency of the Pennsylvania Historic and Museum Commission.)

<http://www.portal.state.pa.us>

- 5.1.9.A Apply examples of the rule of law as related to individual rights and the common good
- 5.1.C.A Analyze the sources, purposes, functions of law, and how the rule of law protects individual rights and promotes the common good

III. Railroads: The Great Railroad Revolution: The History of Trains in America. Christian Wolmar. 2012.

- 8.2.3.B Identify historical documents, artifacts, and places critical to Pennsylvania history
- 8.2.4.B Locate historical documents, artifacts, and places critical to Pennsylvania history
- 8.2.5.B Illustrate concepts and knowledge of historical documents, artifacts, and places critical to Pennsylvania history
- 8.2.6.B Describe the importance of significant historical documents, artifacts and places critical to Pennsylvania history
- 8.2.7.B Identify the role of local communities as related to significant historical documents, artifacts, and places critical to Pennsylvania history
- 8.2.9.D Interpret how conflict and cooperation among groups and organizations in Pennsylvania have influenced the growth and development of the U.S.
 - Ethnicity and race
 - Working Conditions
 - Immigration
 - Military Conflict
 - Economic Stability
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 - Ethnicity and race
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 - Military Conflict
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- 8.2.12.D Evaluate how conflict and cooperation among groups and organizations in Pennsylvania have influenced the growth and development of the US and the world
 - Ethnicity and race
 - Working Conditions
 - Immigration
 - Military Conflict
 - Economic Stability
- 8.3.3.B Identify and describe historical **documents, artifacts**, and places critical to United States history.
- 8.3.4.B Locate historical **documents, artifacts**, and places critical to United States history. T

- **Common Core Standards**

- 8.5 Reading Informational Text: Students read, understand, and respond to informational text
 - with emphasis on comprehension, making connections among ideas and between texts with focus on textual evidence.
 - 8.6 Writing: Students write for different purposes and audiences. Students write clear and focused text to convey a well - defined perspective and appropriate content.
 - 3.5 Reading Informational Text:
 - Students read, understand, and respond to informational text – with emphasis on comprehension, making connections among ideas and between texts with focus on textual evidence.
 - 1.2 Reading Informational Text: Students read, understand, and respond to informational text — with an emphasis on comprehension, vocabulary acquisition, and making connections among ideas and between texts with focus on textual evidence.
- **Rationale** “America was made by the railroads. They united the country and then stimulated the economic development that enabled the country to become the world’s richest nation. Yet the epic tale of the growth of the railroads and their influence on the development of the nation is now largely forgotten and ignored.” Christian Wolmar, 2012. The Great Railroad Revolution: The History of Trains in America. Christian Wolmar. 2012.

Vocabulary

1. Raw Materials
2. Renewable Material
3. Nonrenewable Material
4. Iron / Iron Ore
5. Lenni Lenape
6. Iron Furnace
7. Industry
8. Economy
9. Industrial Revolution
10. Consumer
11. Pullman Car
12. Caboose / Cabin Car
13. Diesel Engine
14. Open Air Coach
15. Brakeman
16. Conductor
17. Engineer
18. Rock Cuts
19. Preservation
20. Green Transportation

Objectives

- Students will
 - View pictures of and actual examples of preserved and restored historical buildings and train cars and discuss the reasons why communities would want to preserve them;
 - Research historic places in their town, such as trains, buildings, parks, statues, or memorials;
 - Answer questions about these places; and
 - Create posters, art, pamphlets or Web pages about the places they have researched.
 - This lesson introduces students to the concept of historic preservation and asks them to find out about places of historic significance in their town. Students will create pamphlets or Web pages that showcase some of these places. Ideally, they will be able to get their pamphlets distributed to the community or have local organizations link to their Web pages.

Essential Questions

- What do the rock formations along the Colebrookdale Railroad line tell us about the land that we now know as Pennsylvania? (Geological history, climate change, mineral extraction/ industrial heritage)
- What was the evolution of the political and cultural geographies that resulted in the Pennsylvania we know today? (Native American, Early Colonial, Revolutionary, Agrarian, Industrial, Post- Industrial)
- How does the preservation of historic places and the recording of historic people, places and things impact the economy, environment and experience of the world today?
- What scientific and technological innovations resulted in the evolution of transportation from walking path through modern train travel along the Secret Valley Line? (Native walking path, Stream / boat, canal, streets, railroad)

- Duration: 1 hour 45 minutes
- Materials:
 - Timeline: **Timeline Event [Colebrookdale Furnace, the Commonwealth's first iron furnace, goes into blast in Berks County.](#)**
 - The Colebrookdale Railroad Corridor. By Dan Graham. http://www.colebrookdaleraailroad.com/history_about.cfm.
 - (optional) Book: The Great Railroad Revolution: The History of Trains in America. Christian Wolmar. 2012.
 - (optional) DVD: Riding the Rails
 - Colebrookdale Railroad
 - For each student, at least one of the following: video camera, camera, or sketchpad/journal and a pencil
 - Computer with Internet access
- **Suggested Instructional Procedures**
 - Research Colebrookdale Iron Furnace before traveling to Colebrookdale Railroad
 - As a class, collectively recreated an historically accurate timeline that traces the growth of iron furnaces in America from inception to modern era.
 - Reference: **Timeline Event [Colebrookdale Furnace, the Commonwealth's first iron furnace, goes into blast in Berks County.](#)**
 - Watch Riding the Rails DVD
 - Discuss Riding the Rails DVD and class recreated timeline
 - **Ride Train**
 - Experience Living, Emergent Historical Experience
 - Listen to Historical Narrative: view the landscape rich with historical points of interest. See the location of the first iron furnace in Pennsylvania. Ride a train over and view seven differently engineered bridges: iron trestle, stone, wooden trestle, etc.
 - Interact with train crew: Conductor, Engineer, Car Host, Dining Steward, Red Caps, Ticket Attendants, and Brakeman
 - Meet each member
 - Understand each role / set of responsibilities
 - Recognize uniform / elements of uniform
 - Q&A
 - Explore train cars: Engine, Open Air Car, Fully Restored Vintage 1919 Pullman Passenger Coach, Dining Café Coach, Lounge Coach, Caboose/Cabin Car
 - Record experience as it occurs
 - Provide students a video camera, photo camera, or sketch pad and journal to capture images and notes during the train ride.
- **Formative Assessment**
 - Students should individually conduct a review of the train experience when they return to the classroom after the train ride
 - Direct reference should be made to their own recorded experiences (pictures, sketches and notes should be used to support their review)
 - Optional: Students can post their review on TripAdvisor, Colebrookdale Railroad Preservation Trust Facebook page, or to their local newspaper as a Letter to the Editor.

- **Related Materials and Resources**

- **Sharing Your Town's History: Archived Xpeditions Lesson; NatGeo.**
<http://education.nationalgeographic.com/archive/xpeditions/lessons/17/g35/tghope.html>
- **Riding the Rails.** James San Jule (Actor), Arvel 'Sunshine' Pearson (Actor), Michael Uys (Director), Lexy Lovell (Director) Rated: NR (Not Rated) Format: DVD
- **Beyond the Marker:** Behind the Marker <http://explorepahistory.com/hmarker/php?markerid=1-A-2A3>
- Arthur C. Bining, Pennsylvania Iron Manufacture in the Eighteenth Century (Harrisburg: Pennsylvania Historical and Museum Commission), 1973.
- Gerald G. Eggert, The Iron Industry in Pennsylvania (Harrisburg: Pennsylvania Historical Association), 1994.
- Railroad: <http://pacivilwar150.com/ThenNow/IndustryCommerce/Railroads>
- Pennsylvania Civil War
- YouTube U.S. Railroad History Video <iframe width="425" height="355" src=<http://www.youtube.com/embed/a8lX5A2q-Eo> frameborder="0" allowfullscreen></iframe>
- Riding the Rails <http://www.pbs.org/wgbh/americanexperience/films/rails>
- Story Credits: <http://explorepahistory.com/story.php?storyId=1-9-17>
- Iron Pioneering. http://www.colebrookdalerrailroad.com/Iron_Pioneering_DanGraham.cfm
- The Colebrookdale Railroad Corridor. By Dan Graham. http://www.colebrookdalerrailroad.com/history_about.cfm.

- **Keywords**

- Railroads
 - Industrial Revolution
 - Raw Materials
 - Pennsylvania
 - Iron Ore
 - Iron Furnace
 - Industry
 - Economy
 - Environmental Preservation
 - Historic Preservation
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