



## Transportation in America During the Industrial Revolution



Select lesson plans that most directly support  
The Henry Ford's educational theme  
"Transportation in America"

Created by participants in the  
National Endowment for the Humanities  
Landmarks of American History and Culture Workshops  
for School Teachers:  
America's Industrial Revolution at The Henry Ford,  
2009, 2010, 2011



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## Elementary Lesson Plan 1

Nancy Fox, Butler Elementary, Butler, Ohio

**Title of Activity:** Measuring with Wilbur and Orville

**Grade Level:** 3

**Overview:** Students will estimate and measure length using customary units utilizing appropriate measurement tools to measure the distance of the Kitty Hawk Flights of the Wright Brothers. This experience will deepen the meaning of the transportation story of the first flight.

**Central Question:** What does the distance of the first flight look like? How did Wilbur and Orville feel when they were taking their measurements?

**Learning Objectives:** Students will connect the use of customary units of measurement with the first flight of Wilbur and Orville Wright. Students will create a table demonstrating the progress of each of the four attempts at Kitty Hawk.

**Assessment Tools:** Teacher observation of groups of students as they measure distance; Students will create a table showing the first four flight distance. Students will also be tested by Accelerated Reader showing basic comprehension of the biography of the Wright Brothers.

**Key Concepts:** Changes in Transportation; The mind of the Inventor; The story of flight; Understanding the order of events in the Industrial Revolution.

**Evidence/Sources:** *A Picture Book of Wilbur and Orville Wright* by David Adler; photos from *Henry Ford Museum*; Curator talks at **The Henry Ford**; Pictures from Carillon Park Dayton, Ohio

**Duration:** 4 days allowing about 40 minutes per day

**Instructional Sequence:** I would teach this unit in the spring of the year after presenting earlier events in the Industrial Revolution. Students would be continually working on an ideas and invention time line throughout the year. The Adler biography would be read in guided reading groups over a 2 day period. Students would examine the picture of the floor medallion from *Henry Ford Museum*. Each student will recreate the medallion on gold paper with overall shape drawn in advance for each student. The attached pictures would be available for all students to see via large projection screen. Classroom discussion of the first four attempts at flight and the distances involved; Discussion of best methods and tools for measurement. Students will then utilize rulers, yardsticks, and tape measures to measure distances of flights. (The first flight (120') will be measured inside the building.) Guide students to the understanding that other measures will probably have to be taken out of doors. Students will record information on individual tables for purpose of assessment. Students will have previously studied the difference between a table and a graph. Students will be quizzed with the use of Accelerated Reader on the text. Flight 2-13 seconds, 195 feet, Flight 3- 15 seconds, 200 feet, Flight 4- 59 seconds, 852ft.

**Student Project Ideas:** Coloring page of Wilbur and Orville for use while groups are doing measurements Great Inventors and Inventions by Bruce LaFontaine, Dover Publications, Inc., 1997

**Anticipated Challenges:** Teacher will demonstrate use of ruler, yardstick, and tape measure; Students should monitor each other for proper technique. Allow students time to discover that the ruler and yardstick aren't suitable tools for this task. Guide students to an understanding of the amount of space needed to accomplish our task (measure desk, classroom, a car etc.)

**Curriculum Links:**

Social Studies

History

Place historical events in sequential order on a time line.

Describe changes in the community over time including:  
technology, transportation

Math Measurement Standard

Identify and select appropriate units for measuring length.

Estimate and measure length utilizing customary units.

Science and Technology

Describe how technology can extent human abilities (to move things and to extend senses).

Describe how technology can have helpful and or harmful results.

Investigate ways that the results of technology may affect the individual, family, and community.

Scientific Inquiry

Select appropriate tools to measure and record length in customary units.

Discuss observations and measurements made by other people.

Read and interpret simple tables and graphs made by self/others.

Scientific Ways of Knowing

Explore through stories how men and women have contributed to the development of Science.









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## Elementary Lesson Plan 2

Amanda Mulbay-Harries, Spinning Hills Middle School, Dayton, OH

- Title of the Lesson:** The Railroad Revolution
- Grade Level:** 5<sup>th</sup> grade
- Overview:** Students will spend a short unit learning how transportation has evolved over time, the ways the railroad changed the United States, and how the railroad has affected our environment in both positive and negative ways.
- Central Question:** Can you identify and give examples of how the railroad aided in the expansion of industry?
- Learning Objectives:**
1. Students will be able to identify how the railroad helped the US expand.
  2. Students will compare and contrast methods of transportation.
  3. Students will recognize various types of power and how they relate to industry.
  4. Students will be able to identify pros and cons of different types of power.
- Assessment Tools:**
- Formative Assessments:
- Exit slips
  - Venn Diagrams
  - Notes from gallery walk
  - Classroom Discussion
- Summative Assessments:
- Student extension projects
- Key Concepts:**
1. Evolution of transportation methods across history
  2. Use of steam power to expand the railroad and the United States
  3. Positive and negative environmental impacts of industry

**Evidence/ Sources:** Photos of train and roundhouse taken at The Henry Ford  
Additional photographs from Ohio Historical Society

**Duration:** 3 days (45 minutes per day), plus extra days for extension projects

**Instructional Sequence:** Introductory Activity:

Students will complete a gallery walk with various pictures of the railroad.

Photos will be posted around the room, and the students will move from station to station in small groups. They will have a series of questions at each station to respond to.

Students will write their responses directly on the chart paper containing the photo. Once all groups have visited each station, we will complete a K-W-L chart as a class.

Teaching Activity:

Students will be working in their small groups. Each group will receive two copies of *Graphic America: the Revolution in Industry* by John Perritano. As students read, they will record main points about each method of 'power.' When each group is completed, go over chart as a class and make sure they are complete. Complete exit slip today with the answer to the following question: *Which method of power do you think is the most useful? Explain your answer.*

Re-Teaching Activity:

Students will draw a method of power from a baggie while in their group. They will choose from the following: man, animal, steam, nuclear, and electric power. The students will then regroup into small groups with the same type of power. While in their new 'power' group, students will discuss and list the pros and cons of their type of power, including effects on people, the environment, and industry. When the 'power' groups have completed their charts, they will



report their findings back to their original group. We will then share and discuss any interesting points or questions as a class.

**Student Project Ideas:**

**Extension Activity Possibilities:**

- Research and create a photo collage of a power type we studied.
- Create a cartoon showing the progression from man power to modern day power methods.
- Create a final copy of a Venn-diagram comparing and contrasting any two types of power.
- Write a newspaper article detailing the first use of one of the types of power. Include the who, what, where, when, why, and how.
- Create a poster advertisement selling one of the types of power. Be sure to explain why your type is better than the others. Use one of the advertising methods we have talked about.

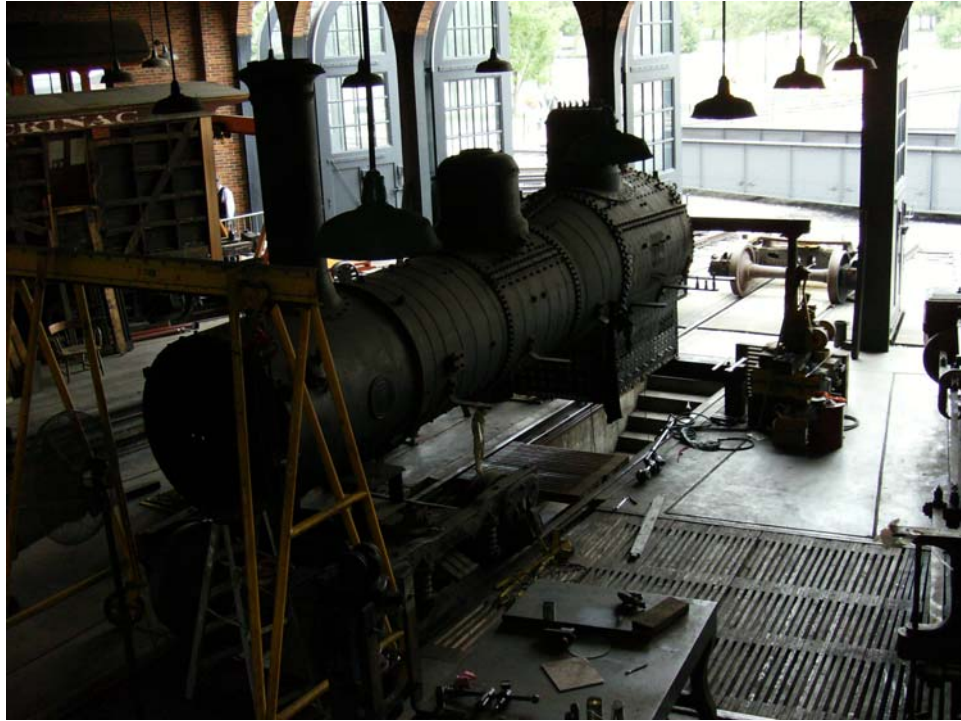
**Curriculum Links:**

Ohio 5th Grade, Social Studies Content Standards:

1. Explain the impact of settlement, industrialization and transportation on the expansion of the United States.
2. Analyze the positive and negative consequences of human changes to the physical environment including:
3. Differentiate between primary and secondary sources.

Photos for Gallery Walk

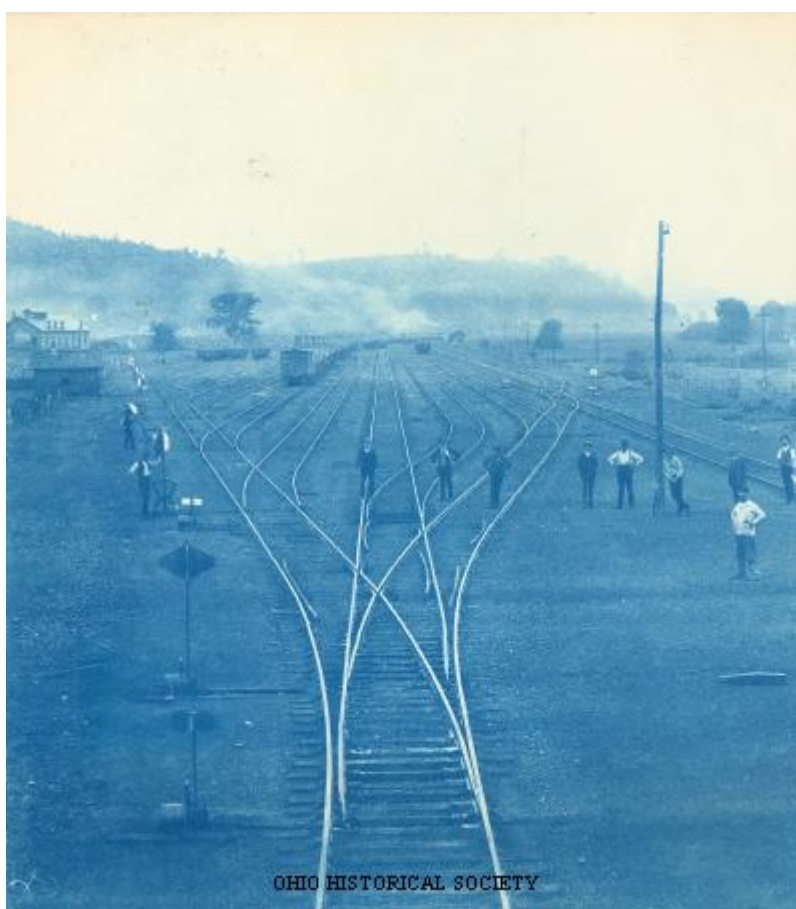




The above photos were taken at The Henry Ford



Modes of Transportation in Dayton, Ohio, photograph, image number AL02993, Ohio Historical Society, Columbus.



Converging Railroad Tracks in South Central, Ohio, Cyanotype, image number AL03634, Ohio Historical Society, Columbus.

Name: \_\_\_\_\_

### Types of Power

Fill in the following chart with key points about each type of power. The information you need can be found in *Graphic America: the Revolution in Industry* by John Perritano. You do not need to write in complete sentences as these are notes.

<b>Type of Power</b>	<b>Where Does the Power Come From?</b>	<b>Where is the Power Used?</b>	<b>Interesting Points</b>
Man Power			
Animal Power			
Steam Power			
Electric Power			
Nuclear Power			

Name: \_\_\_\_\_

Type of Power: \_\_\_\_\_

Pros (good things)	Cons (not so good things)

Would you recommend this type of power to a business who needed a cost effective and green factory? Why or why not?

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## Middle School Lesson Plan 1

Michelle Dulaney, Howardsville Christian School, Marcellus, MI

<b>Lesson Plan Title:</b>	Ford's Assembly Line: Transportation Transformation
<b>Grade Level:</b>	7 <sup>th</sup>
<b>Time Frame:</b>	One class period
<b>Overview:</b>	This lesson discusses the development and dramatic impact of Henry Ford's assembly line on a progressing America.
<b>Central Question:</b>	What caused the transportation transformation?
<b>Learning Objectives:</b>	Students will... <ol style="list-style-type: none"><li>1. understand the history and steps of development of the assembly line.</li><li>2. understand the impact of standard, interchangeable parts and the assembly line on transportation.</li><li>3. understand how specialization and division of labor increase productivity.</li></ol>
<b>Assessment Tools:</b>	Student understanding will be assessed by a John Collins Type II writing assignment.
<b>Key Concept:</b>	Assembly line development
<b>Evidence/Sources:</b>	<p>Pictures from Bob Casey's NEH 2009 Lecture: "Winding the mainspring of the 20<sup>th</sup> century, The Development of the Assembly Line".</p> <p>Cross &amp; Szostak (1994) Ch.'s 14 and 15. <u>Technology and American Society</u>, p.220-222, Upper Saddle River: Prentice Hall, Inc.</p> <p>The Life of Henry Ford) <a href="http://www.thehenryford.org/exhibits/hf/default.asp">http://www.thehenryford.org/exhibits/hf/default.asp</a></p>

The Ford Rouge Complex: A Case Study In Industrialization-  
-Curriculum Connector

<http://www.thehenryford.org/rouge/eduResources/caseStudyIndustrialization.pdf>

**Instructional Sequence:** Fill in the blank lecture notes

Group/individual picture activity

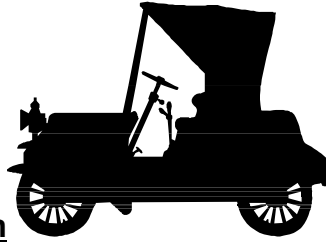
Quiz-John Collins Type II

**Student Project Idea:** Picture activity included in sequence.

**Anticipated Challenges:** This lesson plan addresses the misconception that Henry Ford invented the first car and the idea that the assembly line was an idea that happened successfully overnight!



Name: KEY



Ford's Assembly Line: Transportation

Transformation

**1863**-Henry Ford born on **farm** in **Dearborn**, MI

**1879**- Sixteen-year-old Henry Ford leaves Dearborn for **Detroit** to work as a **mechanic** apprentice

**1891**- Henry Ford, now married, becomes an engineer at the **Edison** Illuminating Company in **Detroit**.

**1893**- Henry Ford promoted to Chief **Engineer** and now has time and money to work on his personal interest, the **internal combustion** engine.

**1896**- Henry Ford builds his first **Quadricycle**.

\*Henry Ford was **not the first** to build a car, but he was one of the innovative automotive pioneers that would transform the country!

\*The Quadricycle had a **gasoline** engine, four bicycle-like wheels, steered with a boat like **tiller**, and only went **forward** in **2** speeds.



Henry Ford on the Quadricycle, 1905  
Photo: P.O. 490-thehenryford.org

**1903**- Henry Ford opens the **Ford Motor Company** on Mack Avenue in **Detroit** after two **failed** attempts.

\*Groups of **two** to **three** men assembled car **parts** that were produced by **other** companies.

**1908**- Henry Ford introduces the **Model T**.

\*Why is it called the **Model T**? The Ford models went through many changes beginning with the Model **N**. The Model **S** went through a major **overhaul** thus giving us the **Model T**.

\*Henry Ford wanted to produce a car that was **affordable**, **reliable**, and **efficient** and the Model T accomplished that! It was also fairly easy to **drive**, take **care of**, and could handle the rough **roads** of the day.



Henry Ford with his Model T (Photo P.O. 3015A  
Museum D31384)



Model T (Henry Ford  
Museum D31384)

(Photos from thehenryford.org)

**1913-** Ford engineers introduce a **moving assembly line** for auto production

\*Ford conducted **time and motion** studies to develop the best **method**, rate of speed of the **conveyer** belt, **height** of work stations, and worker **placements** for maximum **efficiency**.

\***Moving Assembly Line**(def)-Production method pioneered by Henry Ford in which parts are moved **to the worker** rather than the worker to the parts to produce an automobile.

\*Principles of the Ford assembly Line:

1-**Moving Assembly Line** (def)-Workers perform only one or a few of many steps in a production process.

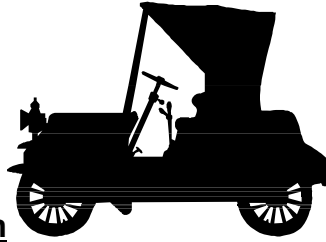
2- **Interchangeable Parts**-Popularized in America by Eli Whitney, parts were standardized and therefore could be mass produced for ease of production. Interchangeable parts also meant parts would be easier to replace by the consumer.

3-**Specialized machines** for each work station

4-Elimination of the many **workers** needed to bring parts to the assembler. Fewer workers resulted in a lower production cost. The lower cost of production made the Model T more affordable to middle class America.

**1918-** **Half** of all cars in America were **Model T's!**

Name: \_\_\_\_\_



**Ford's Assembly Line: Transportation Transformation**

**1863**-Henry Ford born on \_\_\_\_\_ in \_\_\_\_\_, MI

**1879**- Sixteen-year-old Henry Ford leaves Dearborn for \_\_\_\_\_ to work as a \_\_\_\_\_ apprentice

**1891**- Henry Ford, now married, becomes an engineer at the \_\_\_\_\_ Illuminating Company in \_\_\_\_\_.

**1893**- Henry Ford promoted to Chief \_\_\_\_\_ and now has time and money to work on his personal interest, the \_\_\_\_\_ engine.

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Henry Ford with his Model T (Photo P.O. 3015A  
Museum D31384)



Model T (Henry Ford  
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(Photos from thehenryford.org)

**1913-** Ford engineers introduce a \_\_\_\_\_ for auto production

\*Ford conducted \_\_\_\_\_ studies to develop the best \_\_\_\_\_ of speed of the \_\_\_\_\_ belt, \_\_\_\_\_ of work stations, and worker \_\_\_\_\_ for maximum \_\_\_\_\_.

\*\_\_\_\_\_ (def)-Production method pioneered by Henry Ford in which parts are moved \_\_\_\_\_ rather than the worker to the parts to produce an automobile.

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2-\_\_\_\_\_ -Popularized in America by Eli Whitney, parts were standardized and therefore could be mass produced for ease of production. Interchangeable parts also meant parts would be easier to replace by the consumer.

3-\_\_\_\_\_ for each work station

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**1918-** \_\_\_\_\_ of all cars in America were \_\_\_\_\_!

## A Picture is worth a Thousand Words

Picture A:



Picture B:

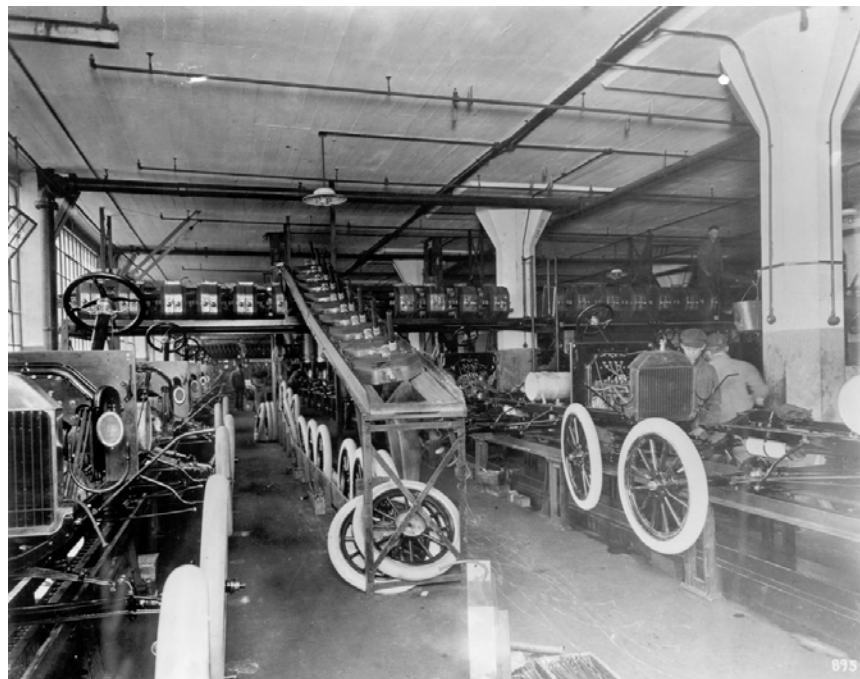


## A Picture is Worth a Thousand Words

Picture C:

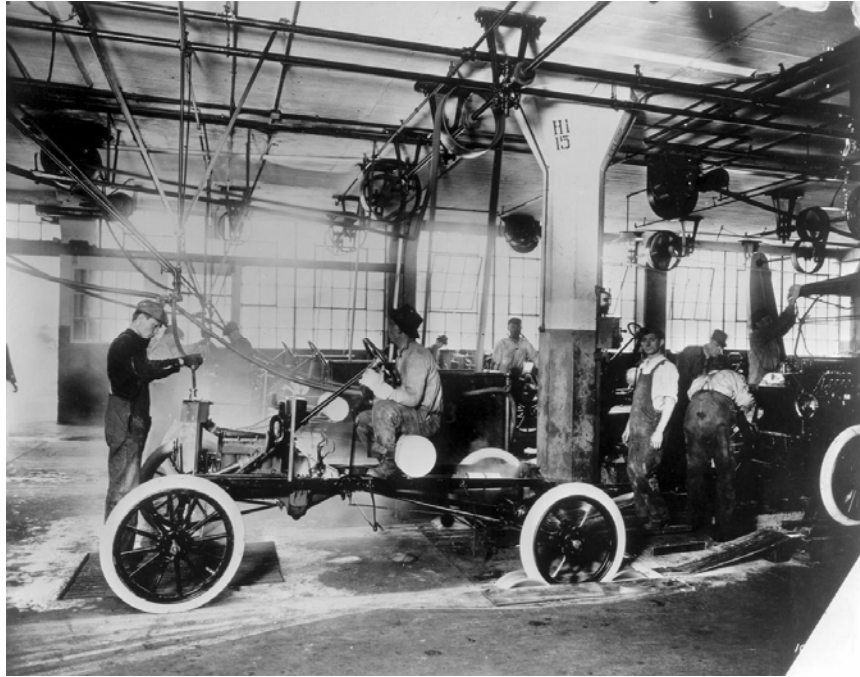


Picture D:

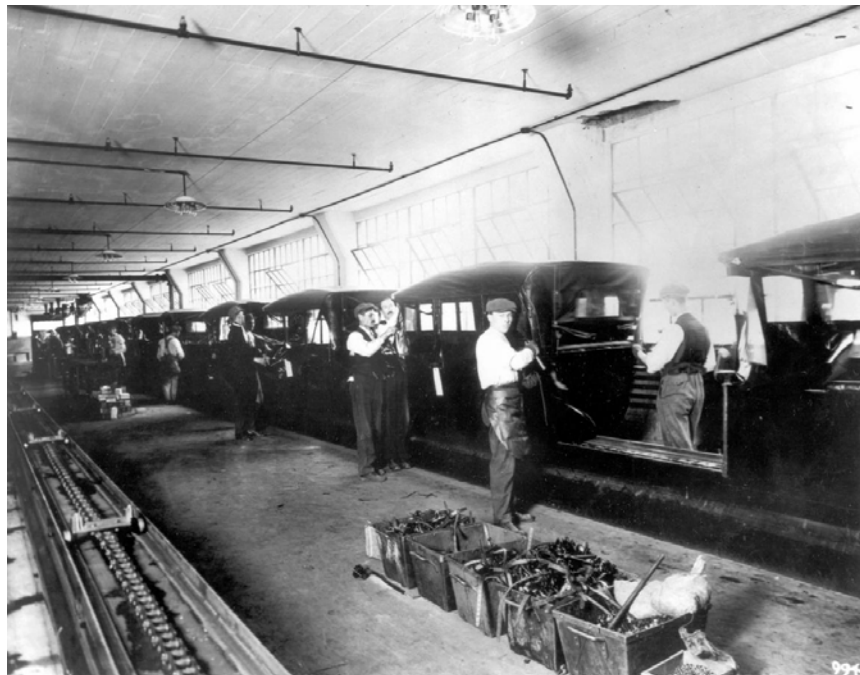


**A Picture is worth a Thousand Words**

Picture E:



Picture F:



Name: Key

## **A Picture is worth a Thousand Words**

### **Picture A: Disassembly line for hogs, 1915**

The meatpacking business was around long before Henry Ford's assembly line and Henry Ford did see some "inspiration" in the process. Look at Picture A, what could Ford have seen that would be put to use in his automotive business?

Students should see the assembly line process. Note the worker standing in the same place while the meat is carried to them on a conveyer system.

### **Picture B: Assembly line for magnets on Model T flywheels, 1913**

The first product that Ford investigated the efficiency of the assembly line was the flywheel. The Flywheel's purpose is to generate electricity that fires the spark plug. Look at Picture B, describe what methods of efficiency were used in this assembly line? Note the placement of the equipment.

Students should note that the worker's hand is in a bin, he is not looking at it because he knows all the parts in that bin are the same. Note the parts bin, and its location to the worker. This is a good time to point out that the slow workers would be forced to speed up and fast ones to slow down enabling the company to control production. Students may also note such things as the height of the bin for the hand and the product being assembled is about eye sight.

### **Picture C: Model T chassis assembly line, installing gas tanks, 1914**

Look at this picture and identify the location of the moving conveyer belt. Can you find where the already assembled gas tanks are coming into the factory?

Students should find the conveyer belt is moving the chassis and the gas tanks are coming in from the window on the mid-upper left side of the photo. Point out the worker.

### **Picture D: Model T chassis assembly line, installing wheels and radiators, 1914**

Can you identify the conveyer belt for the radiators? What other efficient methods can be seen?

Students should find the radiators coming down the ramp on the conveyer belt.

### **Picture E: Model T chassis assembly line, starting the engine, 1914**

Model T's were actually shipped without the bodies. Now look at the picture, what does the man on the left appear to be adding to the engine (hint: radiator)? Can you tell what this Model T touring car is being moved on?

Water is being added by the man on the left and rollers are moving the car.

### **Picture F: Assembly line installation of tops on Model T bodies, 1915**

Can you find

The first bodies were made by a man whose last name was Briggs. Briggs was the first owner of the Detroit Tigers? Can you find the chain for the assembly line on the left of the photo? What do these men appear to be doing to the bodies?

Chain is on bottom left, and the men are in fact painting and adding fabric.



Name: \_\_\_\_\_

### **A Picture is worth a Thousand Words**

#### Picture A: Disassembly line for hogs, 1915

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Can you find

The first bodies were made by a man whose last name was Briggs. Briggs was the first owner of the Detroit Tigers. Can you find the chain for the assembly line on the left of the photo? What do these men appear to be doing to the bodies?

What would be some of the benefits of an assembly line...  
...for the worker?

...for the employer?

What would be some of the down sides of an assembly line...  
...for the worker?

...for the employer?

Name: \_\_\_\_\_

### Henry Ford Assembly Line Quiz

\*This quiz is worth ten points and is graded on content.- John Collins Writing Type II.

1. Summarize the significance of the following steps in the Henry Ford's transportation transformation.
  - a. Henry Ford develops the Model T and wants it to be affordable. (2 points)
  
  
  
  
  
  
  
  
  
  
  - b. Henry Ford studies the affects of the assembly line on the flywheel. (2 points)
  
  
  
  
  
  
  
  
  
  
2. Describe the principles of the Ford Assembly Line. (4 points)
  
  
  
  
  
  
  
  
  
  
3. What is "division of labor"? (1 points)
  
  
  
  
  
  
  
  
  
  
4. What is the significance of the interchangeable parts and the assembly line? (1 point)



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## Middle School Lesson Plan 2

Aimee Saddler, Tualatin Valley Junior Academy, Hillsboro, OR

- Lesson Plan Title:** Sights and Sounds
- Grade Level:** Grade 8
- Overview:** This lesson will attempt to show students the connections between the modern car and the Model T. Students will participate in a series of activities that ask them to evaluate the “Sights and Sounds” of the modern automobile and then compare them with the Model T.
- Central Question:** How are the Model T and the modern automobile connected?
- Learning Objectives:** Students will be able to:
- Identify similarities and differences between the Model T and modern automobiles
  - Discuss the role of the Model T in early 20<sup>th</sup> Century America
  - Use specific examples to describe the connection between the Model T and modern automobiles
- Assessment Tools:** Students will be observed while participating in each of the lesson activities. Students will also be asked to respond in writing to the lesson’s Central Question. (This lesson will be only a portion of a larger unit on the Industrial Revolution which will include a cumulative assessment piece).
- Sources:** For some of the activities students will need access to the Internet either in the classroom or at home. The remainder of the activities can be completed using the handouts given.
- Activity 1: Modern “Sights and Sounds” worksheet, to be completed as initial homework assignment
- Activity 2: Model T photo scavenger activities, in class using pictures from the Benson Ford Research Center

Activity 3: Model T “Sights and Sounds”, to be completed as homework, requires Internet access

Activity 4: Henry Ford Museum Vehicle Inventory Activity, in class and will require Internet access

**Duration:** Two 90-minute block periods for this lesson (only part of a unit on the Industrial Revolution)

- Instructional Sequence:**
1. Students will be given the Worksheet titled “Sights & Sounds” and asked to complete it for homework.
  2. Beginning of first block period, the “Sights and Sounds” worksheet will be used to facilitate a discussion of the way we use the modern automobile as well as the sights and sounds associated with cars in general.
  3. This class discussion will lead us into an introduction to the exterior of the Model T. We will use photographs from the Benson Ford Research Center to complete the following activities.
    - a. In groups students will be given a set of photographs and asked to categorize them in anyway they wish. Each group will then share with the rest of the class.
    - b. Also in groups students will be asked to caption each of their photographs and share their best/favorite caption with the class (possibly post these on a bulletin board).
    - c. Individually, students will each take a photo and write down everything in the photo that is different then in a modern car. (They may wish to refer back to their completed “Sights and Sounds” homework paper).
  4. To conclude this first block period we will discuss the differences that students saw from part 3c above. This will lead into their homework assignment which will be to complete the “Model T: Sights & Sounds” worksheet (Internet required)
  5. Beginning the second block period we will discuss the videos that students watched for homework and their answers on the “Model T: Sights & Sounds” worksheet.

6. During the remainder of the class period we will explore some of the Henry Ford Museum using the online exhibit “The Automobile in American Life”. This activity (Handout) will require Internet access for groups or individuals. At the conclusion of the class period (or assign as homework) students will be asked to respond in writing to the lesson’s guiding questions: How are the Model T and the modern automobile connected? Student responses should include specific examples and reference to activities completed as homework or in class.

## Sights & Sounds

Driving in a car is a transportation experience unlike any other---and with that experience comes, sounds, sights, smells, and experiences unlike any other! Cars have changed over time, and so has the world outside the car. Complete this form the next time you are a passenger in an automobile. **DO THIS ONLY WHEN YOU ARE A PASSENGER!**

### **I. Before you start driving...**

**Type of Car:**

**Date of Trip:**

**Color of the car exterior:**

**Color of the car interior:**

**Where are you sitting (front, back, etc)?**

**Weather:**

**Driver of Car:**

### **II: Now, ask the driver to start the car...**

**WHAT DID YOU...**

- 1. Hear when the car was started? (Turn down the radio!)**
  
- 2. Smell when the car was started?**
  
- 3. Feel when the car was started? (Physical sensations)**

**Listen to the car run for a moment.  
Write down everything you think of  
while you are listening.**

**III. During the drive...**

**How fast was the car going?**

**What do you see out the front window?**

**What types of roads are you traveling? (Side streets, freeways, etc.)**

**What do you see out the side windows?**

**How does the car feel when it's moving?**

**What sounds do you hear as the car is being driven?**

**Estimate how many cars are driving around you.**

**What kinds of businesses do you pass? How many of these businesses have drive-thru's?**

**How many gas stations did you see?**

**How many times did you stop at stop lights?**



### MODEL T: Sights and Sounds

Now that you have examined the sights and sounds of the modern automobile, let's take a look at the Model T.

The Model T is quite different from modern automobiles, in the way it starts and also in how it drives. Henry Ford Estate Fair Lane has a great video that demonstrates just how different the Model T is.

Go to <http://www.henryfordestate.org/teaching.htm> and select the Centennial Video "How to Drive a Model T"

Answer the following questions as you watch.

1. Where is the gas tank located?
2. When was the Model T shown in the video built?
3. How do the tires in the video compare to modern tires?
4. How is the engine speed controlled in the Model T?
5. What are the three pedals on the floor?

Now watch the following two videos. One will show a Model T engine starting and running. The other will show a modern engine starting and running. More than watching, I want you to listen to the vehicles. What sounds do they make? How are they alike? How are they different? Write your answers in the space below.

[http://www.youtube.com/watch?v=oA5Oq\\_ftkol&feature=related](http://www.youtube.com/watch?v=oA5Oq_ftkol&feature=related) (Model T)

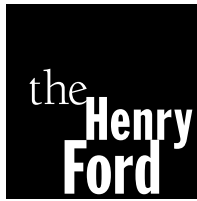
<http://www.youtube.com/watch?v=hVcU-Gl-LzU&feature=Playlist&p=107EA3C76DF6845F&index=17> (07 Mercedes Benz)

**The Henry Ford Vehicle Inventory: Web quest!**

1. Go to the Henry Ford museum website (<http://www.thehenryford.org/museum>)
2. Go to the Online Exhibit: The Automobile in American Life (<http://www.thehenryford.org/museum/automobile.aspx>)
3. Look at each of the cars in the exhibit, and fill in as many details as possible on the chart below.

<b><u>VEHICLE</u></b>	<b><u>COLOR</u></b>	<b><u>INTERIOR/PASSENGER SPACE</u></b>	<b><u>OUTSIDE FEATURES</u></b>	<b><u>INSIDE FEATURES</u></b>	<b><u>HOW IS IT DIFFERENT FROM MODERN VEHICLES</u></b>
<b>15 Millionth Ford Model T Touring Car</b>					
<b>Tucker '48</b>					
<b>Ford 999 Racer</b>					
<b>Bugatti Royale Type 41 Convertible</b>					
<b>EV1</b>					
<b>Ford Mark IV Race Car</b>					

<b>Ford Mustang #1</b>					
<b>Old 16</b>					
<b>Vehicle of your choice:</b>					



## America's Greatest History Attraction

**Michele Anderson, John Glenn High School, Westland, MI**

**Middle/High School Lesson Plan 1: Title of the Lesson/Activity:** Turn of the Century Automobile Advertising

**Grade Level:** High school or middle school

**Overview:** Students will evaluate different automobile advertisements from the early 1900s and work with a partner to identify the reasons why consumers purchased one kind of automobile versus another at the turn of the century. The partners will then select the automobile they would most likely have purchased, basing their decision on the social and economic demographics they were provided with at the beginning of the lesson.

**Central Question:** What factors caused people at the turn of the century to purchase different types of automobiles?

**Learning Objectives:** Students will:

- Identify factors that caused people to purchase automobiles.
- Compare and contrast automobiles at the turn of the century.
- Analyze reasons why others may disagree with the student's decision.
- Recognize automobile companies from the turn of the century.

**Assessment Tools:**

- Copies of two automobile advertisements from the student's given time period
- The completed Double Bubble Thinking Map (Venn diagram)
- A short essay
- Pre- and post-discussions

**Key Concepts:**

- Economics at the turn of the century
- The role of the automobile in people's lives
- Henry Ford's use of the assembly line in automobile production
- The Model T
- Automobile companies found at the turn of the century

**Evidence/Sources:**

- PowerPoint presentation on automobiles and Henry Ford at the turn of the century
- Reading in *The Americas* on Henry Ford and the Model T

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Some of the images and resources used and cited in these lesson plans are not from the collections of The Henry Ford nor are they affiliated with The Henry Ford in any way.

- Reading in *The Americas* on industrialization at the turn of the century
- Internet research using my exhibit on [thehenryford.org](http://thehenryford.org) ExhibitBuilder
- A & E Biography video on Henry Ford

### **Curriculum Links:**

Michigan Department of Education Social Studies

Content Standards U6- History

- 6.1 Growth of an Industrial and Urban America
- 6.1.1 Factors in the American Industrial Revolution
- 6.1.5 Case Study of American Industrialism
- F2 Foundational Issues Changes in commerce, transportation and communication
- P2 Information Processing
- P2.3 Know how to find and organize information from a variety of sources

**Duration:** 2 days

### **Instructional Sequence:**

Students will be randomly assigned a partner to work with and then given a slip of paper from the teacher that describes the kind of person(s) the pair is to pretend to be from the turn of the century. The paper will contain the year in which the students are to look for automobile advertisements in order to purchase an automobile. Also included on the paper will be the social and economic demographics of the person(s) buying the automobile.

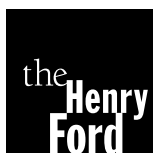
-In partners, students will browse through turn-of-the-century automobile advertisements and select two automobiles they may want to purchase that were advertised the year in which the students were given to study. Once two are selected the partners must decide which automobile they will purchase based on the economic and social demographics of the pretend people(s) that they were randomly provided with at the beginning of the activity. The students will determine which automobile they will purchase after they print out a copy of both advertisements, create a Double Bubble Thinking Map (Venn diagram), and fill in the comparisons, contrasts and similar characteristics of the two automobiles.

-After meeting these requirements and selecting the automobile, students will write their own short essay describing the reasons they used in selecting the automobile, the factors that contributed to not selecting an alternative automobile and the reasons other people may raise about why the other automobile was not selected. They may use some of the same points in their essays that they discussed while conducting their work together.

-In a packet, each pair of students will turn in the advertisements, their Thinking Map and essays.

-The advertisements of each automobile selected will be put on display throughout the classroom.

**Anticipated Challenges:** If I am not able to obtain access to a computer lab then I can either print out the advertisements I placed in my online exhibit and hang them in the classroom for students to select from or require students to conduct their own online search for automobiles.



America's Greatest History Attraction®

## High School Lesson Plan 1

Kenneth Cameron, Andover High School, Bloomfield Hills, MI

**Title of the Lesson:** APUSH Document Based Question (DBQ) Project

**Grade Level:** 10

**Overview:** Using selected collections from the historical archives of the *Benson Ford Research Center*, students will create a document-based question. To accompany the DBQ, students will also create a detailed, APUSH-style rubric that would be used to score potential responses to their DBQ. Finally, students will write a one-page explanation of their DBQ, including a brief description of each of the documents and an overall synopsis of the question.

**Central Question:** This project will hone students' research skills and improve their historical writing through the active exploration and utilization of the historical archives of the BFRC.

**Learning Objectives:** Students will enhance their ability to select, analyze, and categorize primary documents.

**Assessment Tools:** Students will be assessed according to accompanying rubric.

**Key Concepts:** The students' research/DBQ project will focus on early twentieth century American automobile culture.

**Evidence Sources:** Students will enhance their textbook learning through at least one and possibly two scheduled field trips to the BFRC.

**Time Frame:** This project will be completed over a two week period.

**Instructional Sequence:** This project will accompany a unit of study entitled "American Industry at the Turn of the Twentieth Century." Before starting this DBQ project, students will have read their textbooks, prepared historical identification paragraphs on relevant historical terms, and participated in at least one overview lecture/discussion on the topic.

**Student Project Ideas:** See accompanying rubric for more detailed project requirements.

**Anticipated Challenges:** Students might have a difficult time conducting primary research. The instructor will work with the BFRC staff to prearrange highly accessible primary documents for the students to explore.

## APUSH DBQ Project Rubric

### **DOCUMENTS: \_\_\_\_\_ (50)**

- 3-4 appropriate primary sources
- 3-4 appropriate secondary sources
- 2 appropriate visual sources
- Citations listed directly above documents
- Documents numbered properly

### **ESSAY QUESTION: \_\_\_\_\_ (10)**

- Covers appropriate subject matter
- Elicits higher-level thinking skills

### **HISTORICAL BACKGROUND PARAGRAPH: \_\_\_\_\_ (10)**

- Relates directly to the documents
- Relates directly to the essay question
- Well-written; free of grammatical errors

### **APUSH-STYLE DBQ RUBRIC: \_\_\_\_\_ (5)**

- Based on a 9-point scale
- Modeled after DBQ rubrics used in class

### **WORKS CITED PAGE: \_\_\_\_\_ (5)**

- Contains source information for each document used
- Properly cites documents using MLA format – see: <http://owl.english.purdue.edu/owl/resource/557/01/>
- Neatly organized

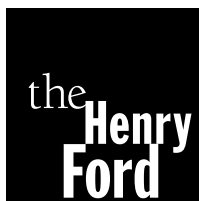
### **DBQ REFLECTION ESSAY: \_\_\_\_\_ (15)**

- Brief analysis of each document
- Suggestions of ideal thesis/response for your question
- Appropriate length (not longer than 1.5 pages, single spaced)
- Well-written; free of grammatical errors

### **PRESENTATION OF PROJECT: \_\_\_\_\_ (5)**

- Includes title page and table of contents
- Placed in a project folder
- Arranged in the proper order
- Visually appealing

### **TOTAL: \_\_\_\_\_ (100)**



## America's Greatest History Attraction

**Megan Cliber, Cumberland Perry Area Vocational Technical School, PA**

**High School Lesson Plan 2: Title of the Lesson/Activity:** Car Advertising and Culture in the 1920s

**Grade Level:** High School (10th grade)

**Overview:** Students will work in groups to examine automobile advertisements from 1908-1930. They will use the documents to identify ways that the automobile changed life in the United States.

**Central Question/Problem:** How were the changing desires and attitudes of the U.S. population of the 1920s illustrated by the automobile advertising of the Ford Motor Company?

**Assessment Tools:**

- Classroom discussion (formative)
- Document activity (summative)
- Venn diagram summary (summative)

**Key Concepts:** Model T Ford, advertising, New Morality of the 1920s

**Evidence/Sources:**

- Advertisements from The Henry Ford collections
- ExhibitBuilder application
- The American Republic* textbook
- The Model T* by Robert Casey

**Duration:** Approximately 50-60 minutes

**Instructional Sequence:**

**Activating Strategy:** Examine the quote – “You do not sell goods, but ideas about goods” – by Norval Hawkins, creative manager of the Ford Motor Co.

**Think/Pair/Share:**

- What is the meaning of the quote above?
- What “ideas” do you think the Ford Motor Co. will try to sell to its customers in the early 1900s?



**Activity Strategy:**

1. Examine a current car advertisement. Students will be asked to list 5 things this advertisement tells us about life today. Discuss student responses.
2. **Review:** Two culture groups of the 1920s (Fundamentalists and the New Morality). Review definition and have students list their values. Should be previous knowledge.
3. **Pair document activity:** Students will examine advertisements for the Model T from 1904-1929 and answer the questions. These questions will target how the advertisements persuade members of both cultural groups to buy their automobiles.

**Summary Activity:** Students will fill in the Venn diagram separating method of persuasion into the two main cultural groups of the 1920s – Conservative Fundamentalists and the New Morality.

**Student Project Ideas:** Students could create an advertisement for other products of the 1920s, such as kitchen appliances, cleaning products or prepackaged food.

**Anticipated Student Conceptions or Challenges to Understanding:** Students must have studied the difference between the Fundamentalists and the New Morality of the 1920s and the consumer culture of the era to fully complete this activity.

Students may have trouble viewing the advertisements online due to bandwidth or have no access to laptops. In that event, document folders could be created for students to use, or documents could be posted around the room for student use.

**Curriculum Links:**

National Council for the Social Studies Standards:

- Culture: Values and beliefs of societies influence their analysis of challenges and their response.
- Time, Continuity and Change: Research and analyze past periods using primary sources.

## Car Advertising and Culture of the 1920s

**Essential Question:** How were the changing desires and attitudes of the U.S. population of the 1920s illustrated by the automobile advertising of the Ford Motor Company?

Do Now: Examine the quote- "You do not sell goods, but ideas about goods"

*Creative Manager of the Ford Motor Co, Norval Hawkins.*

**Think/Pair/Share**

1. What is the meaning of the quote above?
2. What "ideas" do you think the Ford Motor Co. will try to sell to its' customers in the early 1900s?



**What idea is being sold in this ad?**

**List** 5 things this advertisement tells us about life in the year 2011



Its bold presence is a wakeup call to your senses. Beginning with the unmistakable chrome grill that continues its' linear design around Flex in the form of four distinctive grooves. The all-black greenhouse design with privacy glass seamlessly ties the body together with the roof. Equipped with SYNC's hands free phone, music, ringtones, text messaging, directions, emergency services and more. Then just when you get used to them, you discover there's still a lot more. [www. Adamsonford.com](http://www.Adamsonford.com)

# Car Advertising Document Activity

**Directions:** Work with a partner to use the Documents at the Henry Ford Exhibit: *Ford Advertising* to answer the questions below. Please answer all QUESTIONS in sentence form.

Access through the following link:

<http://collections.thehenryford.org/ViewExhibit.aspx?exhibitID=1365#>

## Document A

Year of Advertisement:

Car Advertised:

What boast is the advertisement making?

## Document B

Year of Advertisement:

Car Advertised:

\$ of car:

Find the section that says THE BEST PROOF, why do you think this statement is especially important in the early 1900s?

## Document C

Year of Advertisement:

Range of cost?

How did this Advertisement support its' claim that the purchase of a car is "Within the Means of Millions"?

Where in the advertisement, can you find evidence of installment plans?

### Document D

Year of Advertisement:

Why does the advertisement claim that the Ford Closed Car is good in all weather?

Why do you think this advertisement might appeal to the 1920s woman?

Why do you think the advertisement might appeal to the more conservative people of the 1920s?

### Document E

Year of Advertisement:

How does this advertisement convince people of the dependability of the Ford?

How have quality and price changed over the years according to the advertisement?

### Document F

Year of Advertisement:

Why might this advertisement appeal to the modern woman of the 1920s? (Include at least 2 examples)

### Document G

What is the document advertising?

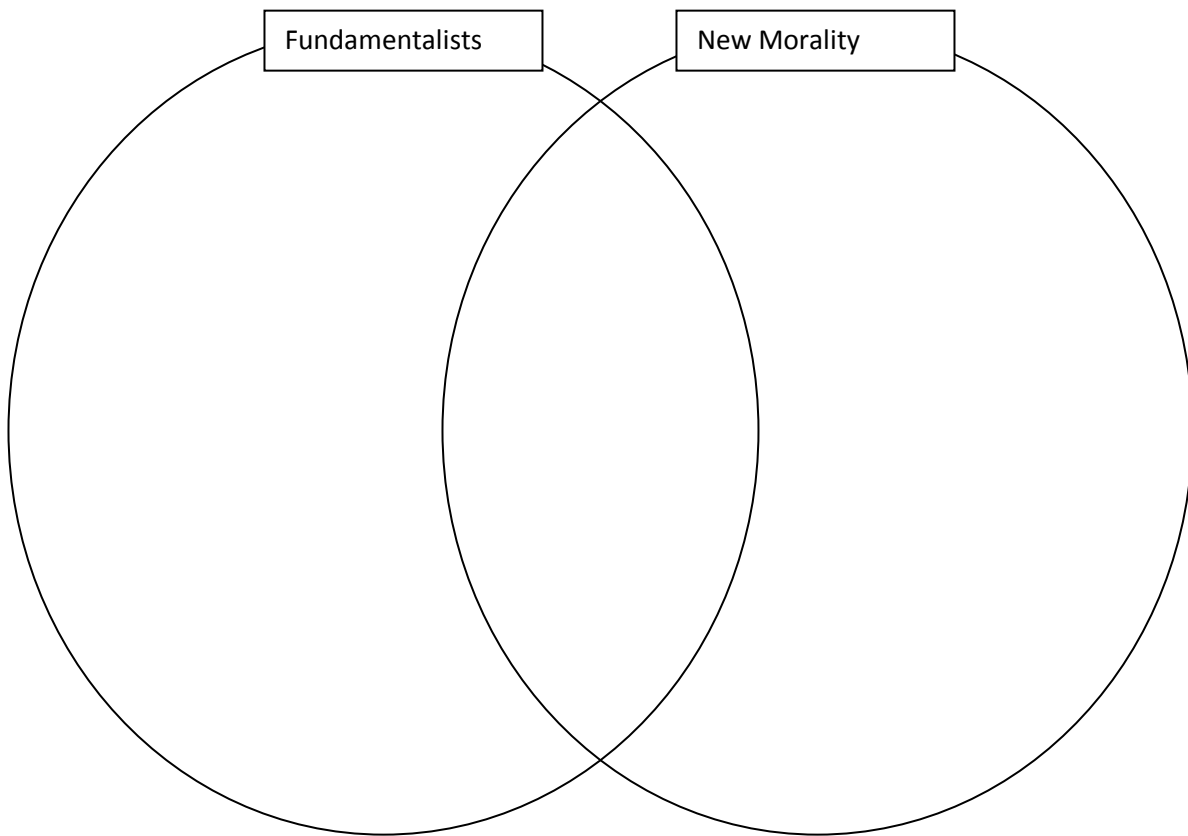
What are some of the biggest reasons to buy a Ford according to the advertisement?

Document H

How does the price of the Cadillac-La Salle compare the price of the Ford in the 1920s?

Why should you buy a Cadillac according to the advertisement?

**Summary Organizer:** Use the Venn Diagram to below to list ways in which the Ford Motor Company and other advertisers try to appeal to the two main cultural groups of the 1920s; Fundamentalists and the New Mortality. You must have at least 10 items on your diagram.



Created by: Megan Cliber, Cumberland Perry AVTS



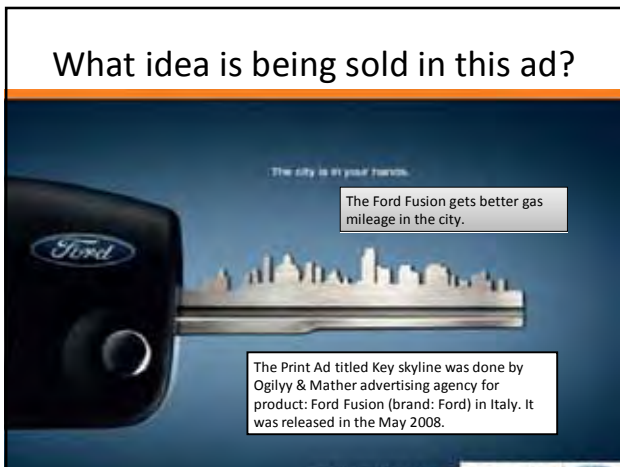
**EQ:** How were the changing desires and attitudes of the U.S. population of the 1920s illustrated by the automobile advertising of the Ford Motor Company?

- Do Now: Examine the quote- “You do not sell goods, but ideas about goods”

*Creative Manager of the Ford Motor Co, Norval Hawkins.*

- **Think/Pair/Share**

1. What is the meaning of the quote above?
2. What “ideas” do you think the Ford Motor Co. will try to sell to its’ customers in the early 1900s?



### Review Terms

- Fundamentalism: **belief in traditional values**

VALUES: home, family, religion, hard work, dependability

- New Morality: **any cultural idea that doesn't fit into the traditional value system**

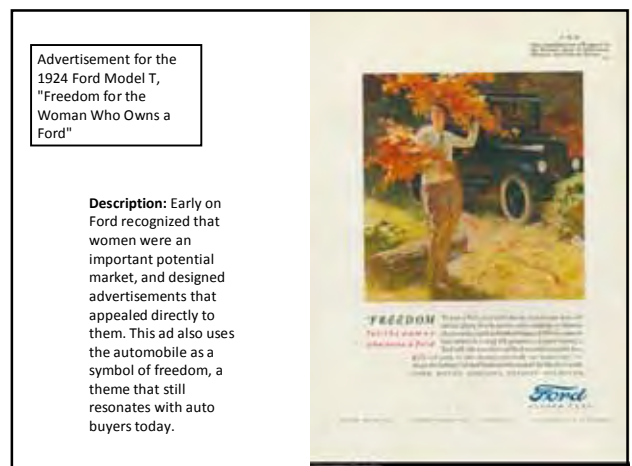
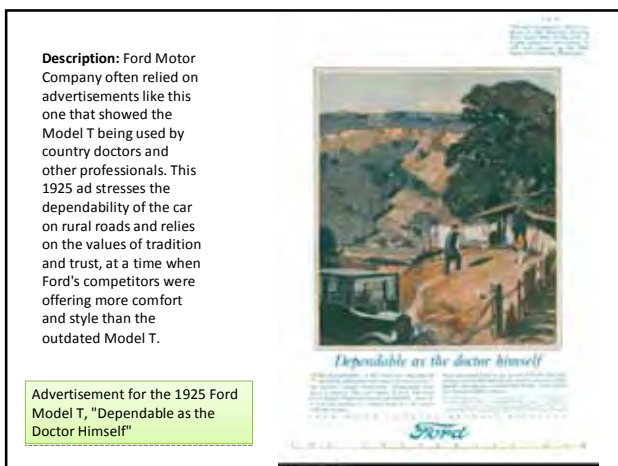
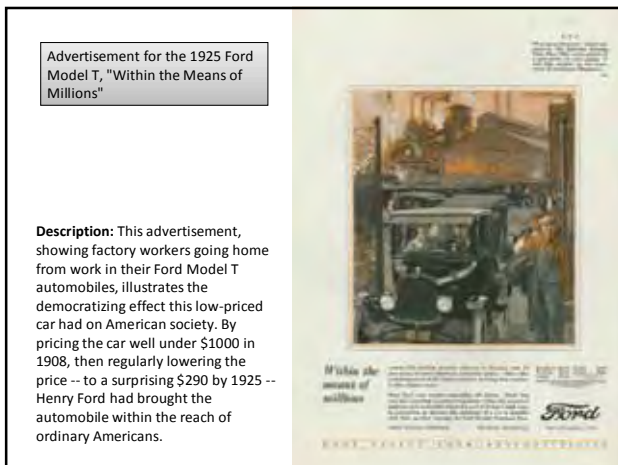
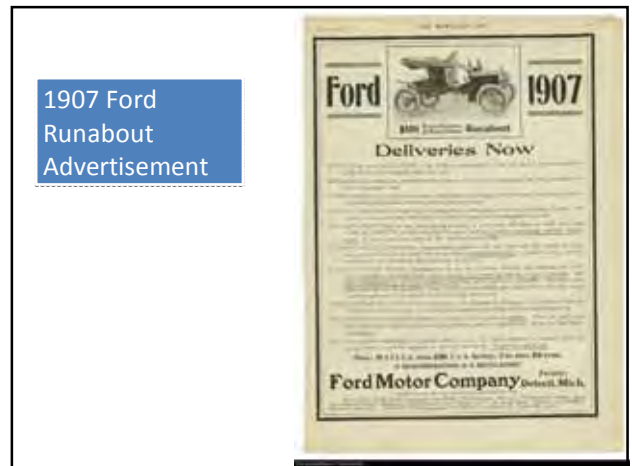
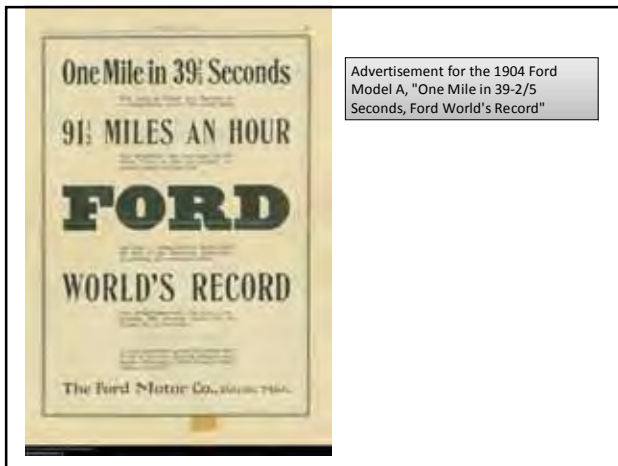
VALUES: independence, freedom, youth culture, jazz culture, flapper culture

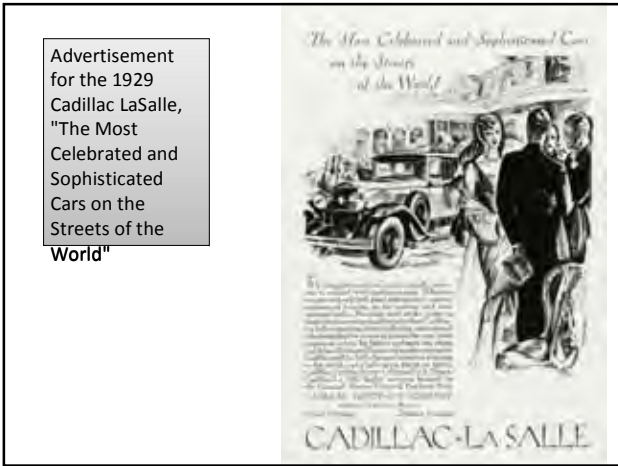
Cover of *Life*, 2/18/1926 illustration by John Held. How to do the Charleston.

### Car Advertising Document Activity

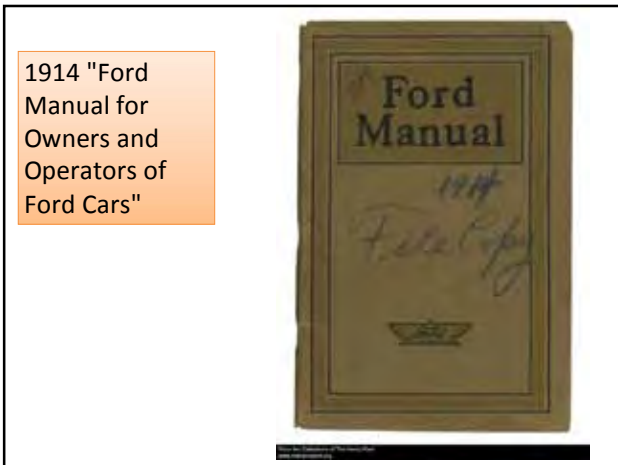
**Directions:** Work with a partner to use the Documents at the Henry Ford Exhibit: *Ford Advertising* to answer the questions below. Please answer all **QUESTIONS** in **sentence form**.

- Access through the following link:  
<http://collections.thehenryford.org/ViewExhibit.aspx?exhibitid=1365>



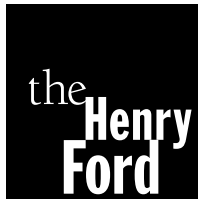


Advertisement for the 1929 Cadillac LaSalle, "The Most Celebrated and Sophisticated Cars on the Streets of the World"



1914 "Ford Manual for Owners and Operators of Ford Cars"





## America's Greatest History Attraction

**Ann Calhoun, Lincoln High School, Ypsilanti, MI**

**High School Lesson Plan 3: Title of the Lesson/Activity:** Henry Ford

**Grade Level:** 9th grade U.S. History

**Overview:** In this lesson, students will identify the contributions of Henry Ford and the assembly line and how they affected a progressing America. The lesson will culminate with a visit to the Ford Rouge Factory.

**Central Question/Problem:** How did the automobile change American life?

**Learning Objectives:** The student will be able to:

- Discuss the life of Henry Ford
- Explain the impact of the automobile on American life

**Assessment Tools:** Student involvement in discussions and participation in activities, timeline and essay.

**Key Concepts:** Henry Ford and the automobile, Ford's assembly line, Industrial Growth

**Evidence/Sources:**

- Textbook *America – Pathways to the Present* (Prentice Hall)
- The Henry Ford's websites
- Ford Rouge Factory

**Duration:** 3 class periods

**Instructional Sequence:**

Day 1: The teacher will lead a class discussion about Henry Ford, his life and how he changed the assembly line to increase efficiency. Following the discussion, students will work in pairs or small groups to complete these activities:

- List at least 10 changes in American life caused by the automobile.
- Select at least 2 of the changes and note the development of related services, industries and problems that were created by the change and how they were resolved.

- List 3 ways owning a car might have affected a 1920s family that had never owned a car before.
- Imagine being a young person in the mid-1920s. List 3 reasons that might convince your parents that it would be a good idea to purchase an automobile.

Day 2: Students will create a timeline showing the advancements of cars. They should include a glimpse into the future by ending their timeline with their view of a car of the future. (Students can use ExhibitBuilder to create their timeline.)

Day 3: Field trip to the Ford Rouge Factory. Students will write a 2-page essay summarizing what they saw and learned on the field trip.

**Curriculum Links:**

- USHG 6.1.5 A Case Study of American Industrialization – the Impact on Michigan
- USHG 7.1.1 The Twenties
- USHG 9.1.1 Economic Changes



America's Greatest History Attraction

## High School Lesson Plan 4

Martha Cain, Berkley High School, Berkley, MI

- Lesson Title:** Overview of the Transcontinental Railroad
- Grade Level:** 9<sup>th</sup> – 12<sup>th</sup> grade
- Overview:** This lesson provides an overview of the history and impact of the transcontinental railroad in America.
- Central Question:** How did steam locomotives develop in America? How did the transcontinental come about? What were some of its challenges? What was its impact?
- Learning Objectives:**
- The students will gain a working knowledge of the history of the locomotive in America.
  - The students will understand the development of the transcontinental railroad.
  - The students will understand the impact of the railroad in America's development.
- Assessment Tools:** During the lesson, formative assessments will be used. After the lesson, the students will create their own question and answer session to be used as part of the class review for the test or unit assessment.
- Key Concepts:**
- The steam locomotive was developed in Europe.
  - The railroad was developed in America parallel with the steamboat and became its competition
  - Railroad lines developed (particularly in the East) without government regulation and consistency
  - Two major railroad lines were granted the right to build a railroad crossing America
  - Once completed, the railroad had political, social and economic impact

**Evidence/Sources:** The students will use the power point, information from their textbook, class discussions, and prior knowledge for the lesson.

**Time Frame:** The lesson will take 1 -2 class periods

**Instructional Sequence:** Since this lesson can be used either as an introduction to the transcontinental railroad or as a review, the power point can be used throughout your unit on the Industrial Revolution. If used as an introduction, the students should brainstorm what they know about railroads in America, including the transcontinental railroad. Information in the textbook could be reviewed before or after the presentation.

**Student Project Ideas:** Students pair up with another class member and develop a list of questions regarding the railroad prior to the presentation and answer them throughout the presentation. Unanswered questions are shared with the class and then divided for homework.

Students research the steam engine including its developments (air brakes, etc.)

Students go the media center and research primary sources on the railroad. They draw names/roles out of a hat and have to take that person's perspective on the railroad (e.g. Native American, Western Farmer, Eastern Manufacturer, etc.)

**Anticipated Challenges:** Although students have some working knowledge regarding railroads in America, they may have false information. A way to counteract this is to create a class list of ideas on the railroad on the board. As students come across information regarding the railroad, they put a "T" or "F" next to each item on the board.

**Curriculum Links:** Michigan Content Standards:  
6.1 Growth of an Industrial and Urban America  
6.1.1 Factors in the American Industrial Revolution  
6.1.3 Urbanization  
6.1.4 Population Changes

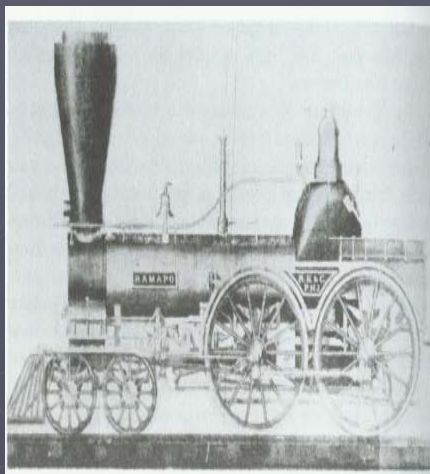
## The American Railroad



Transforming a nation

## First Railroads

- ▶ 1769, Scottish engineer James Watts gains the 1<sup>st</sup> patent for a practical steam engine
- ▶ England, 1825 – first railway locomotive (used to pull coal down a 9 mile track)
- ▶ Used to reduce friction in moving heavy wheeled vehicles





- ▶ Railroads and steam propulsion developed separately, and it was not until the one system adopted the technology of the other that railroads began to flourish.

## American Steam Railroad

- ▶ Finished by Peter Cooper
- ▶ Called *Tom Thumb*
- ▶ Carried passengers along 13 miles of track from Baltimore to Ellicott's Mills, Maryland.
- ▶ By year's end, similar railroad roads existed in New York and South Carolina

## Many railroad lines built exclusively to compete with canals in the East



## Trains significantly reduced travel time

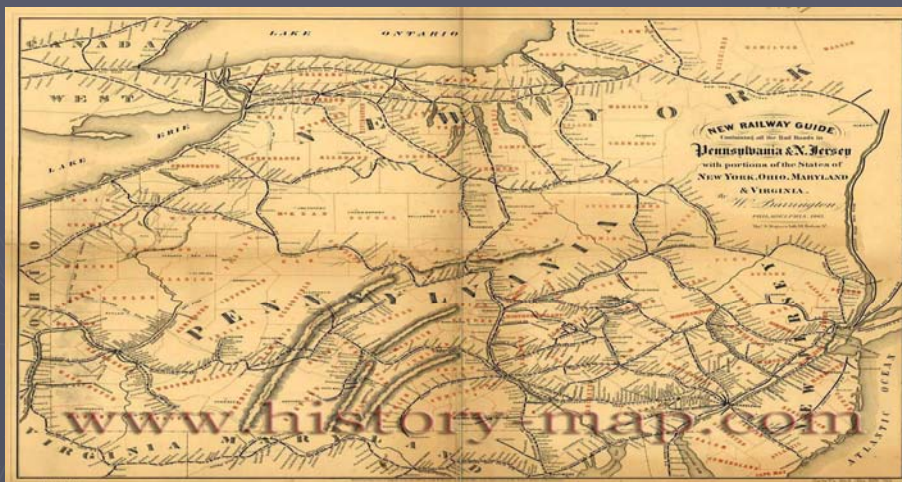
- ▶ From Cincinnati, Ohio to St. Louis, MO:
  - By steamboat, 702 miles and 3 days of travel time.
  - By railroad, 339 miles and 16 hours of travel time.
  - Allows not only for the movement of people, but expansion of consumer markets

## Railroads started to developed regionally



- ▶ No government regulations
- ▶ Different railroad companies used different gauged track, ranging from 4 ft. 8.5 inches to 6 ft.
- ▶ Trains could not travel from one line to another.

Railroads developed haphazardly with no "master plan" or consistency.





## American Railroad Growth

- ▶ **1840:** 2,808 Miles
- ▶ **1850:** 9,021 Miles
- ▶ **1860:** 30,000+ Miles
- ▶ **1870:** 52,922 Miles
- ▶ **1880:** 93,267 Miles
- ▶ **1890:** 163,597 Miles
- ▶ **1900:** 193,346 Miles
- ▶ **1916:** 254,037 Miles
- ▶ **1945:** 226,696 Miles
- ▶ **1963:** 214,387 Miles
- ▶ **1995:** 170,000+ Miles
- ▶ **Today:** 160,000+ Miles

## Push for a national railway system

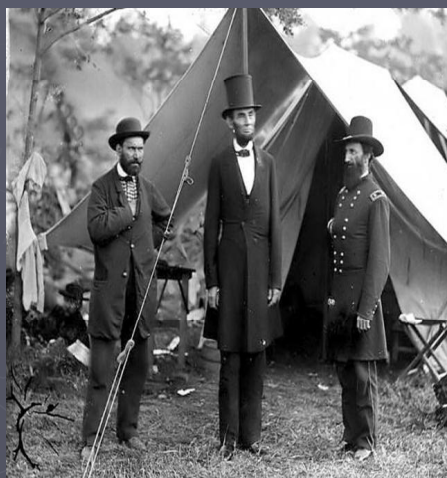
- ▶ 1845, Asa Whitney asks Congress to fund a railroad to the Pacific.
- ▶ He tries for six years to get federal approval but eventually the growing sectionalism in America prevents a national railroad from being developed.
- ▶ 1848 – As President Polk leaves office, he announces the discovery of gold in the Oregon Territory.

- ▶ Sept. 1850, California (and all its gold) becomes the 30<sup>th</sup> State
- ▶ 1859 – Discovery of gold and silver in Nevada lures many people west
- ▶ 1860 – a route through the Sierra Nevada mountains is plotted and six men form the Central Pacific Railroad Company



## Pacific Railroad Bill

- ▶ Passed by Congress and signed by Lincoln
- ▶ July 1, 1862
- ▶ Endorses the idea of a transcontinental railroad
- ▶ Central Pacific to build from California eastward and created the Union Pacific Railroad Company to begin building the R.R. westward.



## Railroad Bill

- ▶ Grants each railroad 6,400 acres of land and \$48,000 in government bonds per mile of railroad completed.
- ▶ The bill does not designate a meeting point for the two lines.



## Central Pacific

- ▶ Begins in Sacramento, CA
- ▶ Leland Stanford, Governor and investor in the Central Pacific Railroad breaks ground on the Central Pacific on Jan. 8, 1863
- ▶ Strike their first rail on Oct. 26, 1863
- ▶ 1865 – The railroad begins to hire Chinese workers. Most of labor force at this point are Irishmen.

## Slow progress in the East

- ▶ April 9, 1865, Robert E. Lee surrenders. Thousands of soldiers will be looking for work and will find it on the Union Pacific R.R.
- ▶ July 10, Union Pacific strike their first rail in Omaha, two years after the Central Pacific.

## Challenges of the Central Pacific

- ▶ Whereas the Union Pacific R.R. began their building on relatively flat farmland, the Central Pacific had to dig 12 tunnels through the Sierra Nevada Mountains, averaging little more than a few inches a day.



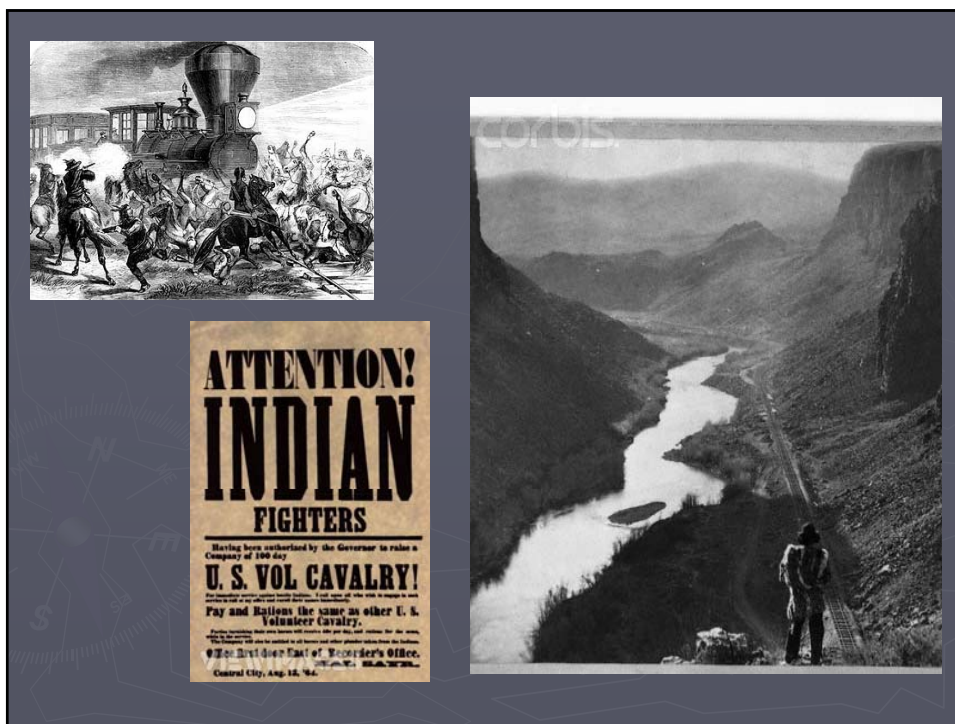
## Chinese Workers

- ▶ Over 6,000 Chinese working on the R.R. by 1865
- ▶ Hard working – physically smaller than other workers so they were good to work in the tunnels
- ▶ Drank tea instead of ditch water (boiled the water), didn't drink, ate more vegetables – healthier overall
- ▶ Despite their work ethic, still viewed by many as inferior – different language, culture, food, etc.



As the railroads push their way across the American landscape, various conflicts occur with the Native Americans

- ▶ Sand Creek Massacre (November 1864): 150 Cheyenne and Arapaho are killed, mostly women and children
- ▶ Dec. 1866, Capt. Fetterman and his troops are ambushed by the Sioux
- ▶ Aug. 1867, Cheyenne Warriors pull up the track and kills all of the R.R. crew except one man who is able to flee
- ▶ Nov. 1868 – Red Cloud, a Sioux signs a treaty with the U.S. government



## A meeting place, at last!

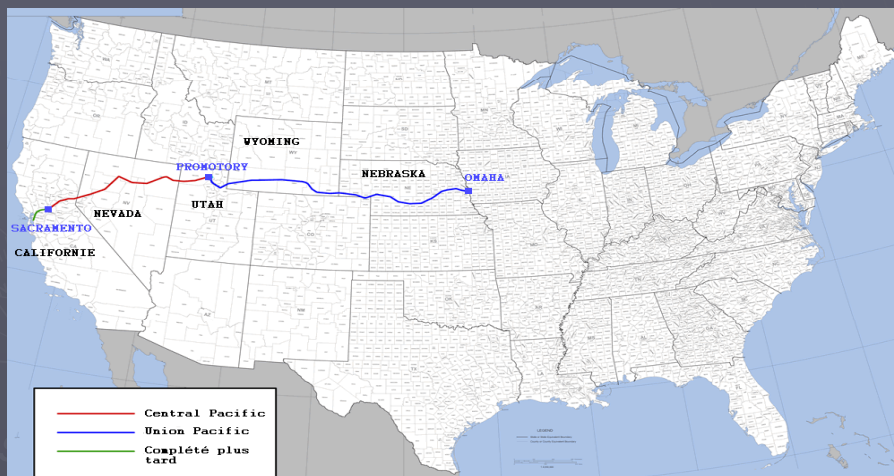
- ▶ April 8, 1869 - After much debate, the two railroads decide to meet at Promontory Summit, Utah
- ▶ A race begins between the two railroads to beat each other to the finish line
- ▶ April 28, the Central Pacific lay an unheard of 10 miles of track between sunrise and sunset.
- ▶ Unpaid workers on the Union Pacific line block the railroad line and a bridge washes out, delaying the Union Pacific by two days

## "The Golden Spike"

- ▶ May 10, 1869
- ▶ Telegraph operators transmit to both coasts the hammering of the last spike
- ▶ Do you see any Chinese workers in this picture? They were not allowed in the photograph despite their contributions



At last, America became geographically united!



## Consequences of the T.C.R.R.

- ▶ Movement of goods
  - Allowed new market to open up for farmers and manufactures alike. Hard goods could be shipped from the east while produce was shipped from the west.
  - By 1880, the railroad carried over \$50 million annually worth of freight.
  - The railroad's wealth attracted many unethical business men and transactions and would eventually come under stricter governmental control
  - New industries developed around the railroads

## Impact Continued

- ▶ Movement of People
  - San Francisco to NY used to take almost 6 months, now it took roughly a week.
  - Served as a passageway to over 200 million acres of new settlements between the Mississippi and the Pacific ocean.
  - New towns created in the west, allowing the "native" lands to be "civilized."
  - New population lead to the creation of new states.



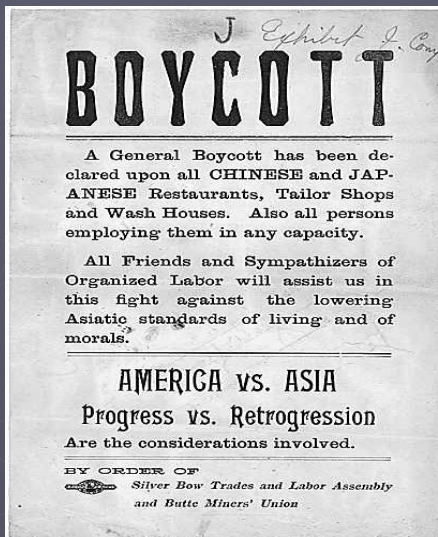
## Impact on Native Americans

- ▶ Buffalo herds devastated. At one point, there were over a million buffalos on the American plains, the number dwindled to roughly 1,000 – ending a way of life for thousands of Native Americans.
- ▶ Plain Indians placed on reservations.
- ▶ Red Cloud's Treaty of 1868, guaranteeing hunting rights in the Powder River Valley is broken. The Sioux are moved to six smaller and disconnected reservations.



## Chinese

- ▶ Despite their valuable contributions to the completion of the railroad, the Chinese Exclusion Act is passed in 1882, banning any further Chinese from entering America. The act is renewed in 1892 and 1904.





## America's Greatest History Attraction

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**High School Lesson Plan 5: Title of the Lesson/Activity:** Postcard Writing Project

**Grade Level:** 9-12 grade, Language Arts/History/Creative Writing

**Overview:** Examine how the Industrial Revolution's changes and advancements in transportation impacted the experiences of Americans. How did the improvements in transportation impact the movement of people throughout the U.S.?

**Central Question/Problem:** How did improvements in transportation during the Industrial Revolution affect the lives of the middle class in America in terms of travel?

### **Learning Objectives:**

The learner will:

- Examine three modes of transportation that altered the life of Americans during the Industrial Revolution: steamboat; steam train; automobile (e.g., Model T)
- Analyze historical images and pictures of Industrial Revolution modes of transportation:
- ExhibitBuilder (<http://collections.thehenryford.org/ExhibitHome.aspx>)  
Access images/pictures via materials available on The Henry Ford website.  
(<http://collections.thehenryford.org/Index.aspx>)
- PowerPoint presentations made available to NEH participants in the 2011 Industrial Revolution experience at The Henry Ford.
- Central Pacific Railroad website. <http://cpr.org/Museum/>
- Read excerpts from primary sources of travel logs, diaries, letters, etc.
- Read literary references regarding modes of transportation
- Poems, Essays, anecdotes
- Excerpt from Mark Twain's *Huckleberry Finn*
- Excerpts from *Passage to Union: How the Railroad Transformed American Life 1829-1929* by Sarah H. Gordon

**Assessment Tools:** Informal discussion, initial writing responses, Postcard Writing Project rubric, flow chart showing sequencing of modes of transportation, postcards

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**Key Concepts:** Steamboat, steam train and automobile travel, changes in frequency, cost, opportunities for travel distance of travel.

**Evidence/Sources:** Information from scholarly presentations, NEH PowerPoint presentations, curator talks, presenter talks and readings as well as images, videos, photos, The Henry Ford exhibits, *A journey to Ohio in 1810 as recorded in the journal of Margaret Van Horn* by Margaret Van Horn Dwight.

**Duration:** 4-5 class periods

**Instructional Sequence:**

Day 1:

- Discuss memoir/journal/postcard writing:
  - Why did people write? What was its purpose? What is the value? What can we learn from this type of writing?
- Show images of Industrial Revolution travel:
  - steamboat, steam train, automobile
  - <http://collections.thehenryford.org/ExpertGallery.aspx>
- Initial writing exercise
- Students are given 5-10 minutes to write about what they see/feel/think when they view the visual image.
- Encourage students to respond with emotional reactions as well as factual information.
- Students share their responses orally with the class.
- Discuss the students' responses/reactions.

Day 2:

- Hand out samples of journal entry written by a traveler during the Industrial Revolution.
- Students should notice the writer's writing style.
- Students should consider language, images, topics, feelings, etc.
- Samples to consider using:
  - Excerpt from *Huckleberry Finn* by Mark Twain
  - Excerpts from *Passage to Union: How the Railroad Transformed American Life 1829-1929* by Sarah H. Gordon
  - Excerpt from Margaret Van Horn Dwight's book
  - [http://books.google.com/books?id=INI-AAAAYAAJ&pg=PR5&dq=margaret+dwright,+a+journey+to+OHIO+in+1810&hl=en&ei=gb1XTrrgOYvogQfwoOiKDA&sa=X&oi=book\\_result&ct=result&resnum=1&ved=OCCoQ6AEwAA#v=onepage&q&f=false](http://books.google.com/books?id=INI-AAAAYAAJ&pg=PR5&dq=margaret+dwright,+a+journey+to+OHIO+in+1810&hl=en&ei=gb1XTrrgOYvogQfwoOiKDA&sa=X&oi=book_result&ct=result&resnum=1&ved=OCCoQ6AEwAA#v=onepage&q&f=false)
- Computer use
  - Have students log in to the ExhibitBuilder via The Henry Ford website.
  - <http://collections.thehenryford.org/ExhibitHome.aspx>
  - Have student look at images of boats, trains and automobiles.
  - Have students read excerpts accompanying the pictures.
  - Have students read the "Curator's Reports" that accompany some of the images.
- Have students' select 3-4 images to accompany their postcard project.

- Hand out the Postcard Project writing assignment.

Days 3-4: (Can be shortened or lengthened at teacher's discretion)

- Students will be engaged in writing 3 to 4 postcards for their project.
- Remind students to include realistic information as well as fictional.
- This can be assigned as homework if there is not enough class time for writing in class.
- If time permits have students get with a partner and exchange their writing samples/entries.

Day 5:

- Students will put the pictures they selected on the front of a postcard to provide the visual reference for their entries. (Or Publisher/ExhibitBuilder)
- Students need to create 3-4 postcards and write on the back of the postcard their writing entries.
- When students have completed assembling the postcards, put students into groups of 4-5 writers and have each writer share their favorite entry.
- Have each group select 1 person to share their image and writing sample with the class.
- Discuss with the class what they observed, learned, thought, experienced based on their creation of the postcards.

**Student Project Ideas:** In-class writing; homework (optional); individual work on the postcard images and writing samples; partner and group work based on the sharing of postcards; online working to find primary sources, images and documents, off-line in terms of assembling the postcards, writing the postcards and reading the postcards

**Anticipated Student Conceptions or Challenges to Understanding:**

The contradiction between fictional writing and realism. The idea that one person's truth is not every person's truth. The improvements in transportation during the Industrial Revolution made for increase travel and with that came new and interesting experiences for many Americans.

**Curriculum Links:**

CCC. <http://www.corestandards.org/>

ALA. <http://www.ala.org/ala/mgrps/divs/aasl/guidelinesandstandards/learningstandards/standards.cfm>

# POSTCARD PROJECT ASSIGNMENT & RUBRIC

## Early American Transportation

Score \_\_\_\_\_/\_\_\_\_\_

**GOAL:** Create an informational postcard that demonstrates your understanding of one of the following modes of early American transportation (steamboat, steam train or early automobile). The postcard should promote the form of transportation to the potential reader of your postcard.

Your postcard should be a culmination of your research, classroom discussions and readings based on primary sources and literary references to the mode of transportation you have selected.

**POSTCARD CONTENT:** Your project must include the following items:

1. Method of early transportation identified (headline or title).
2. Your name and the date your project was submitted.
3. Three advantages of this mode of transportation (as compared to the other forms of transportation).
4. Three or four images that you have collected from your research that represent the mode of transportation you have selected.
5. Estimated cost for one passenger (you should also identify the travel destination – i.e. from Boston, MA, to Detroit, MI).
6. Map of the route (i.e., Google Maps) that you have selected.
7. Estimated length of time that the trip will last based on the route you have selected using your mode of transportation at the time of the Industrial Revolution.
8. Three sites of interest that your passengers will see if they select your form of transportation (i.e., famous landmarks, cities, natural scenery, etc.).

After selecting your specific mode of transportation, select one of the following methods in which you will create your informational postcard. **OPTIONAL:** include video clip(s) which help to sell this form of transport.

**OPTION 1:** ExhibitBuilder (<http://collections.thehenryford.org/ExhibitHome.aspx>)

Create an informational postcard using all four walls of the ExhibitBuilder that includes all postcard content listed above 1-8.

**OPTION 2:** Microsoft Word/Publisher

Create a 2-page document that includes all postcard content listed above 1-8.

**OPTION 3:** Handmade Postcard

Create 3-4 actual postcards in the style of a postcard from the late 1880s (size 4x6) that includes all postcard content listed above 1-8.

Save your computer file as “AmericanTransport\_\_your name\_\_”

DUE DATE: \_\_\_\_\_

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