Gateway to Dayton Teaching American History: Citizenship, Creativity, and Invention

2003

Americans On the Move: Grade 5 American History Lesson Plan

Timothy Binkley

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School: Wright State University  Grade: 5

Lesson Plan Title: Americans On the Move

<table>
<thead>
<tr>
<th>Content Area(s)</th>
<th>American History</th>
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</thead>
<tbody>
<tr>
<td>Learning Objectives</td>
<td>With the development of their first practical powered aircraft, the Wright Brothers introduced a new mode of transportation. By touring Carillon Historical Park, students will learn about different forms of transportation including the Wright Flyer. They will be asked to evaluate the merits and limitations of each, and how different forms of transportation aided in the expansion and development of the United States. [Note: this lesson plan is very similar to “Moving Along”, a lesson plan for use at the Huffman Prairie Flying Field Interpretive Center/Wright Memorial. Because of duplication, only one trip (1.5 hours = HPFF/WM, 1 full day = Carillon Park) should be chosen.]</td>
</tr>
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<tr>
<th>Benchmarks for the Ohio Academic Content Standards for Social Studies</th>
<th>History Benchmark C: “Explain how new developments led to the growth of the United States.” (p.28)</th>
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<tbody>
<tr>
<td>Indicators for above Benchmarks of the Ohio Academic Content Standards for Social Studies</td>
<td>Grade-Level indicator for Grade Five, Growth: “6. Explain the impact of settlement, industrialization and transportation on the expansion of the United States.” (p.44)</td>
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</tbody>
</table>

| Preparation for Teacher (Historical background that teacher must do to prepare for lesson) | It would be helpful for the teacher to be familiar with the layout and collections of Carillon Historical Park before taking students there. Helpful websites include http://www.carillonpark.org/ and http://www.nps.gov/daav/cul_1905wrightflyerIII.htm. “The Park is a 65-acre outdoor museum with 23 exhibit buildings and structures, and is the site of the 57-bell Deeds Carillon, Ohio’s largest. The highlight of the collections is the 1905 Wright Flyer III, the world’s first practical airplane, and a National Historical Landmark. The airplane |


and Wright Hall are components of the Dayton Aviation Heritage National Historical Park.”
(Quoted from their website.)


It is worth noting that the Dayton Aviation Heritage National Historical Park has produced “From Wheel to Wing: A Guide to Teaching the invention of Flight” This excellent resource is available for your use. Call 937-225-7705 to ask for a copy.

If Carillon Historical Park has produced their own teaching guides and lesson plans, the staff might make them available for your use. Call 937-293-2841 to ask for copies.

If you want a Carillon Park representative to assist with this virtual field trip, remember to call 937-293-2841 in advance to schedule a speaker.

Before taking this virtual field trip: Tell students that they will be expected to take notes. Therefore, they will need to have paper or writing pads and a pen or pencil handy.

**Core Activities**
(Detail in steps with division of time)

1 hour (plus time for cross-discipline)

It would be ideal to have a staff member or volunteer from Carillon Historical Park guide this virtual tour. If so, that person can add her or his own insights and stories and answer student questions throughout. If not, a teacher can lead.

http://www.carillonpark.org/ [Note: this site not working 8/29/03]

State: Carillon Historical Park is a 65-acre outdoor museum in Dayton that helps us learn about and remember the history of the Miami Valley. http://www.nps.gov/daav/park_partners.htm

Celebrated in the park’s 23 buildings are the lives of the pioneer settlers and another important type of pioneers: people who were inventors and innovators.

http://www.aviationtrailinc.org/#carillon

Because Dayton has been a major transportation center for many years, Carillon Park’s historical collections include many examples of different forms of transportation used throughout the years. These transportation-related exhibits are what we will focus our attention on today.

[Show / project / log into exterior and interior images of the following exhibit buildings. ***IMAGES NOT YET AVAILABLE 8/03.***]

- **WAGON SHED** “houses early forms of transportation including an 1843 Conestoga wagon, an 1870 Concord coach and a circa 1900 surrey from nearby Findlay, Ohio.”

- **CANAL SUPERINTENDENT’S OFFICE** (1895) “was used for collecting fees for canal use and was located between Second and Third Streets in Downtown Dayton.”

- **MIAMI AND ERIE CANAL LOCK NO. 17** “is located in the original canal bed dug between 1825 and 1829 which runs through the park. The lock, circa 1833, was first located six miles north of Dayton. While the stones are original, the gates are reproductions.”
• SMITH COVERED BRIDGE (1870) “was built by Robert W. Smith and spanned Little Sugar Creek on Feedwire Road in Greene County.”

• MORRISON IRON BRIDGE (1881) once spanned Tom’s Run on Gratis Road near Farmersville, Ohio. It was built by David Morrison, founder of the Columbia Bridge Works of Dayton.”

• JAMES F. DICKE FAMILY TRANSPORTATION CENTER “houses most of the park’s public transportation collection: the 1835 John Quincy Adams, 1903 Summer Trolley, 1904 Kuhlman Interurban, 1923 B & O Caboose, 1903 Barney & Smith Railroad Car, 1949 Marmon-Herrington Trolley Bus and RTA Supervisor’s Booth.”

• BOWLING GREEN STATION (1894) “was originally located in Bowling Green, Ohio and served as many as 14 passenger trains daily. It contains furniture and equipment from Ohio railway stations of the period.”

• DAYTON CYCLERY “houses the Park’s collection of rare and antique bicycles with a special emphasis on the Miami Valley’s role in bicycle evolution.”

• DAYTON SALES “is a representative auto sales building, housing early Dayton-made automobiles. Among them are a 1908 Stoddard-Dayton, 1910 Speedwell and a 1923 Maxwell.”

• SUN OIL STATION (1924) “was formerly located at the intersection of Brown and Warren Streets in Dayton. The pumps in front of the station feature clear glass cylinders which attendants filled with gasoline from an underground tank and then let them drain into customers’ cars.”

• DEEDS BARN “is a replica of Col. Edward Deeds’ barn behind his Central Avenue Dayton home and was the site for Charles Kettering and ‘The Barn Gang’s’ invention of the electric self-starter for the automobile”

• JOHN W. BERRY, SR. WRIGHT BROTHERS AVIATION CENTER “including Wright Hall and the Wright Cycle Shop, tells the story of the Wright brothers and showcases their original 1905 Wright Flyer III, the world’s first practical airplane.”

[Note: All of the above descriptions have been taken from the pamphlet, “Carillon Historical Park Visitor Guide.”]


http://www.nps.gov/daav/cuWrightFlyerIII.htm

While viewing the Wright Flyer, mention that this is an original Wright Flyer III, built in 1905 and restored (rebuilt) under the supervision of Orville Wright.

Ask students the following questions:
• What materials did the Wright Brothers use to build their airplane? [wood, metal, cloth]
• Does this plane look sturdy or fragile?
• Before flying airplanes, the Wright Brothers flew kites. How does this airplane
resemble a box kite? How is it different?
• Before making airplanes, the Wright Brothers made and sold bicycles. How does this airplane resemble a bicycle? How is it different? [e.g., similar = spoke-like supports, propellers driven by a bicycle chain; different = has an engine and no wheels!]

State: The Wright Brothers flew their first airplane in Kitty Hawk, NC, on December 17, 1903. This first flight was “enough to prove that mechanical flight was possible, but not enough to prove that it was practical.” Ask: “What is the difference between possible and practical?” See if students can brainstorm the criteria that would make an aircraft practical (“useful”). Here is Wilbur and Orville’s list:
• The ability to take off
• The ability to sustain flight
• The ability to control direction, and
• The ability to land safely.
This airplane was the very first to do all four of these things. Therefore, it is known as the first practical aircraft.

After the students have viewed the exhibits in the final room of the Aviation Center, ask: “What forms of transportation came before the airplane?” Have students list as many as possible. It might be good to write these answers down on newsprint or poster board for later reference. Some possible answers: walking, riding on horseback, driving an animal-drawn vehicle (cart, buggy or coach), boat, train, streetcar, bicycle, roller skates, ice skates, etc. Brainstorm some advantages and disadvantages of using each listed form of transportation.

Ask: Which of these forms of transportation did people use as they settled America? What forms of transportation are practical for moving a family and its goods 1000 miles, and which are impractical?

Ask: How would our world be different if airplanes hadn’t been invented? How would your life be different if the airplane hadn’t been invented?

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<tr>
<th>Resources/Materials</th>
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<tr>
<td>Internet web pages, either projected for the class directly (or turned into overhead transparencies.)</td>
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<tr>
<td>If students have direct access to computers, they can pull up the indicated web pages as the tour proceeds. Rather than typing each web address individually (which is rather tedious), it might be helpful to have them available as a pre-typed list of hyperlinks in a word processing document, a PowerPoint presentation or a webpage that all can access.</td>
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The transportation displays of Carillon Historical Park include:
• Wagon Shed
• Canal Superintendent’s Office [note canal map]
• Miami and Erie Canal Lock
• Smith Covered Bridge
• Morrison Iron Bridge
• James F. Dicke Family Transportation Center (railroad, streetcar, bus)
• Bowling Green Station (railroad) [note railroad map]
• Dayton Cyclery
• Dayton Sales (automobile)
• Sun Oil Station
• Deeds Barn
- John W. Berry, Sr. Wright Brothers Aviation Center [Note: Don’t miss the excellent multi-media presentation in the little theater between the cycle shop and the Wright Flyer III.]

***IMAGES OF THESE BUILDINGS AND THE ARTIFACTS THEY HOUSE, ALONG WITH INTERPRETIVE TEXTS DESCRIBING THEIR SIGNIFICANCE, ARE NOT AVAILABLE ON THE WEB AT THIS TIME. THEY WILL NEED TO BE GENERATED AND MADE AVAILABLE TO TEACHERS/STUDENTS IN ORDER FOR THIS VIRTUAL FIELD TRIP TO WORK.***

Newsprint or poster board and markers. Blank paper, lined paper and graph paper, pencils with erasers, clip boards or other writing surfaces. Straight edges and colored pencils might also be useful.

**Collaboration/Sharing**

<table>
<thead>
<tr>
<th>ART: Find pictures of Wilbur and Orville Wright on the internet or in books. Draw or paint an image of both of the Wright Brothers building or testing their kites, bicycles or airplanes.</th>
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<tr>
<td>MATH: Make a chart showing how fast you can travel by foot (3 mph), horse (6 mph), bicycle (10 mph), boat (20 mph), train (60 mph), car (65 mph), and airplane (200 mph). Calculate how long it would take to travel 1000 miles traveling 10 hours per day by each of these methods.</td>
</tr>
<tr>
<td>ENGLISH COMPOSITION: Imagine that you have just seen an airplane fly overhead for the very first time. Compose a newspaper headline story reporting what you have just seen and how you feel about it.</td>
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<tr>
<td>SCIENCE / ART: Think about something that would make the Wright Flyer more safe or practical. Write a letter to the Wright Brothers describing your helpful idea. Be sure to include an illustration of your idea.</td>
</tr>
<tr>
<td>HISTORY / COMPOSITION: Research and write a brief report on an Ohio “ghost town.” Try to discover when and why this town died.</td>
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</table>

**Assessment**

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<thead>
<tr>
<th>To assess the effectiveness of this field trip, have students complete the following test. [Have this copied and ready to hand out.]</th>
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<tbody>
<tr>
<td>WORKING WITH A PARTNER, ANSWER THE FOLLOWING QUESTIONS:</td>
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<tr>
<td>1) Name the two Wright Brothers who invented the airplane.</td>
</tr>
<tr>
<td>2) What was their home town?</td>
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<tr>
<td>3) Name one kind of work the Wright Brothers did together before building airplanes.</td>
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<tr>
<td>4) The Wright Brothers wanted to go beyond showing that powered flight was possible. They wanted to make it “____________.”</td>
</tr>
<tr>
<td>5) Name any two qualities or abilities of a “useful” aircraft.</td>
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</tbody>
</table>
6) Where did the Wright Brothers first succeed in flying a heavier-than-air, machine-powered aircraft on December 17, 1903?

7) Name something the Wright Brothers flew before they flew an airplane.

8) Name five forms of transportation that came before the airplane.

9) WORKING ALONE, COMPLETE THIS WRITING ASSIGNMENT: Think of your favorite artifact, picture or exhibit, story or activity of the day. On the back of this paper, write one paragraph (at least five sentences) about it.

GRADE 5 TEST RUBRIC  (Questions 1-10)
Fourteen responses are requested.

TEST KEY:
1) (2 responses requested) Wilbur, Orville
2) Dayton, Ohio
3) (1 response requested) printing / publishing; bicycle repair, sales and manufacturing
4) practical
5) (2 responses requested) An airplane must be able to take off, keep flying once in the air, control the direction of flight, land safely; carry passengers, carry cargo, be reliable
6) Kitty Hawk, NC
7) (1 response requested) kites, gliders
8) (5 responses requested) Some possible answers: walking, riding on horseback, driving an animal-drawn vehicle (cart, buggy or coach), boat, train, streetcar, bicycle, roller skates, ice skates

WRITING RUBRIC - GRADE 5  (Question 6)

<table>
<thead>
<tr>
<th>CONTENT</th>
<th>GRAMMAR</th>
<th>LEGIBILITY</th>
<th>MECHANICS</th>
<th>EFFORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 On topic</td>
<td>All sentences complete and coherent</td>
<td>Very legible</td>
<td>Correct capitalization, punctuation and spelling</td>
<td>Very engaged; significant energy expended</td>
</tr>
<tr>
<td></td>
<td>Somewhat topical</td>
<td>Most sentences complete and coherent</td>
<td>Mostly legible</td>
<td>Mostly correct capitalization, punctuation and spelling</td>
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<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Very little connection to topic</td>
<td>Some sentences complete and coherent</td>
<td>Somewhat legible</td>
<td>Some correct capitalization, punctuation and spelling</td>
</tr>
<tr>
<td>1</td>
<td>Not on topic</td>
<td>Filled with incomplete and incoherent sentences</td>
<td>Not legible</td>
<td>Little correct capitalization, punctuation and spelling</td>
</tr>
</tbody>
</table>

**Extensions:**

1) In the classroom or media center, compare and contrast the following:

- Map(s) indicating the major water routes of transportation (oceans, rivers, lakes, canals)  
  [An Ohio canal map can be found at http://my.ohio.voyager.net/~lstevens/canal/canalmap.html ]
- Railroad map(s) / many options are available at http://memory.loc.gov/ammem/gmdhtml/trnshome.html , an Ohio railroad map is available at http://railmap.railspot.com/USA/OH/Ohio_railmap_1950.GIF 
- Highway map(s) [Why not AAA?]
- Map(s) indicating the location of North American airports and flight patterns.  
  [Check out the FAA: www.fly.faa.gov/flyfaa/usmap.jsp and detail maps such as www.fly.faa.gov/flyfaa/ncmap.jsp .]

Discuss the link between transportation and the birth and death of towns.

2) Discuss the link between transportation and the birth and death of towns. If you were settling a new area today, what forms of transportation would you desire and what forms would you avoid?