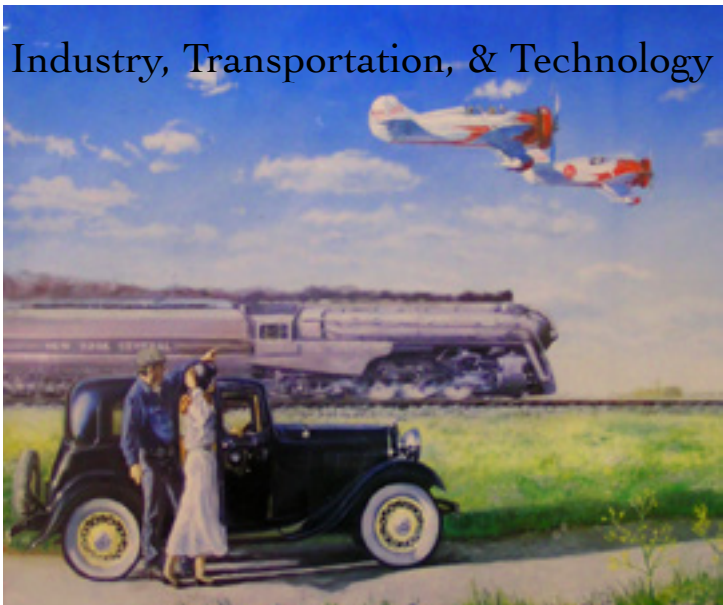


Industry, Transportation, & Technology



**“We must always take sides. Neutrality helps the oppressor, never the victim. Silence encourages the tormentor, never the tormented.”**  
~Elie Wiesel  
**WHICH SIDE ARE YOU ON?**

Allegiances & Alliances

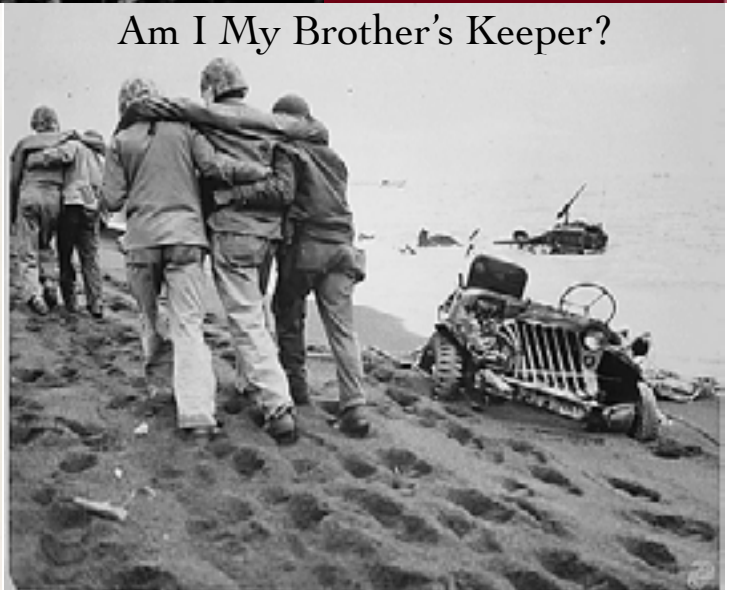
**Heroes Serve & Sacrifice  
Warriors Make Peace**



Endurance



Am I My Brother's Keeper?



# Industry, Transportation, and Technology: 1865-1895

## Characters and Connections:

Horace Hunley and the Submarine, 1864  
John B. Stetson and the Stetson Hat, 1865  
Alfred Nobel and Dynamite, 1866  
Transcontinental Railroad joined in Utah, 1869  
John D. Rockefeller and Standard Oil Company  
Levi Strauss and Blue Jeans, 1873  
Nikolaus Otto and Internal Combustion Engine, 1876

Alexander Graham Bell and the Telephone, 1876  
Thomas Edison and the Phonograph, 1877  
The Brooklyn Bridge, 1883  
J. K. Starley and the Rover Bicycle, 1885  
Karl Benz and the Motorwagen, 1886  
John Dunlop and Inflatable Tires, 1888

## Language Arts:

Read about a Character and/or Connection.  
Write a summary or an outline about a C or C.  
Write a story or poem about a C or C.  
Read a speech or book written by a C. Share.  
Write about why this Character is a hero?  
Read and summarize "Rails, Zones, and Bulbs" in *Story of the World* Volume 4, Chapter 8 [SW 4:8].

## Social Sciences:

Make a map to illustrate all C or C listed.  
Create a timeline to show all C or C listed.  
Read a biography on a C or C. Share.  
Create a timeline for one Character's life.  
Create a map for one Character's life or city.

## Math:

How much did a Stetson hat cost in 1865? today?  
In today's dollars how much did that hat really cost?  
How much did a pair of Levi jeans cost in 1873?  
How much does a pair of Levi jeans cost today?  
How many miles of track were laid by each side for the Transcontinental Railroad? feet?  
The total length in inches for the Brooklyn Bridge?

## Physical Sciences:

How does a submarine work?  
Learn all you can about dynamite. Share.  
What does oil look like after it is drilled?  
How is oil refined? What are some byproducts?  
How does a combustion engine work?  
Learn about bridges and how they work. Build a bridge.  
Share what you learned.

## Fine Arts:

Draw a picture about a Character &/or Connection.  
Paint a picture about a C or C.  
Sculpt or create a replica of a C or C.  
Learn how phonographs work and how phonograph recordings were made.  
[Listen to an early phonograph recording.](#)  
Watch "Brooklyn Bridge" PBS documentary.

## Life Skills:

Learn and present basic telephone manners.  
Take a bike ride. Share your adventures.  
Learn how to change a flat tire. Practice. Teach.  
Recycle old jeans by sewing them into a skirt or blanket.

## Best Books:

*Farmer Boy* by Laura Ingalls Wilder  
*The Story of Thomas Alva Edison* by Margaret Cousins  
*Thomas Edison for Kids: His Life and Ideas, 21 Activities* by Laurie Carlson  
*The Great Bridge* by David McCullough

# Industry, Transportation, and Technology: 1896-1920

## Characters and Connections:

Dow Jones Average first published, 1896  
Electric Cars made up 25% of car sales in 1900  
Orville and Wilbur Wright successful flight, 1903  
Henry Ford, Ford Motor Company, Model-T, 1903/1908  
New York Subway opens 1904  
First Electric Start Automobile Company, 1911  
Marie Curie, Nobel Prize in Chemistry, 1911

Ford Motor Co. assembly line and \$5/day, 1913/1914  
The Panama Canal opens, 1914  
WWI and Zeppelins, 1915  
WWI and Poison Gas, 1915  
Thompson Submachine Gun, 1916  
Creation of British Royal Air Force and use of Airplanes in WWI, 1918

## Language Arts:

Read about a Character and/or Connection.  
Write a summary or an outline about a C or C.  
Write a story or poem about a C or C.  
Read a speech or book written by a C. Share.  
Write about why this Character is a hero?  
Read "[Power](#)," a poem about Marie Curie by Adrienne Rich,  
Discuss this poem and share it.

## Social Sciences:

Make a map to illustrate all C or C listed.  
Create a timeline to show all C or C listed.  
Read a biography on a C or C. Share.  
Create a timeline for one Character's life.  
Create a map for one Character's life or city.

## Math:

What were the stock prices of the 12 companies listed on the Dow Jones Average in 1896? What is General Electric's stock price today?  
What were Ford Motor Company workers paid before the increase in daily wage to \$5.00/day? What is the federal minimum wage/hour today? per day?

## Physical Sciences:

How were railways electrified for subways? Share.  
How do electric cars work?  
Learn about flight and early airplanes.  
What ingredients were used in WWI poison gas?  
Learn about the Periodic Table, Marie Curie's discovery of radium and polonium, and/or x-rays?  
How are subways built?

## Fine Arts:

Draw a picture about a Character &/or Connection.  
Paint a picture about a C or C.  
Sculpt or create a replica of a C or C.  
Watch a documentary about a C or C. Share.  
Learn how to make a variety of paper airplanes. Have a contest to determine the strengths and weaknesses of the different paper airplane types.

## Life Skills:

Learn about the stock market, the Dow Jones Average, and other averages like the S & P 500.  
Practice "investing" in the stock market by playing an [on-line game](#) or "buying" and "tracking" and "selling" the stock of your choice on paper or on a computer spreadsheet.  
Take a field trip to an air museum.

## Best Books:

*The Wright Brothers for Kids* by Mary Kay Carson  
*Madame Curie* by Eve Curie (there is also a Reader's Digest version of this book, © 1966)  
*Cheaper by the Dozen* by Frank B. Gilbreth, Jr. and Ernestine Gilbreth Carey  
*The Path Between the Seas: The Creation of the Panama Canal, 1870-1914* by David McCullough

# Industry, Transportation, and Technology: 1921-1945

## Characters and Connections:

Radios and Public Radio Broadcast Stations  
Albert Einstein, Nobel Prize in Physics, 1921  
Edwin Hubble discovers other galaxies, 1924  
Robert H. Goddard, Liquid Fuel Rocket, 1926  
Charles A. Lindbergh, Flight across Atlantic, 1927  
Philo T. Farnsworth, Electronic Television, 1927  
Iron Lung invented by Drinker & Shaw, 1928  
Freon (1929), Fiberglass, Teflon, Nylon (1938)

Tiltrotor invented, 1930  
Bathysphere completes successful dive, 1930  
Landing Vehicle Tracked (LVT) invented, 1933  
George Sibbitz, First Relay-Based Computer, 1937  
Atoms, Neutrons (1932), Nuclear Fission (1938)  
Xerography, 1938  
Bazooka invented, 1942

## Language Arts:

Read about a Character and/or Connection.  
Write a summary or an outline about a C or C.  
Write a story or poem about a C or C.  
Read a speech or book written by a C. Share.  
Write about why this Character is a hero?

## Social Sciences:

Make a map to illustrate all C or C listed.  
Create a timeline to show all C or C listed.  
Read a biography on a C or C. Share.  
Create a timeline for one Character's life.  
Create a map for one Character's life or city.

## Math:

Learn about early computers. How were they programmed?  
How did they calculate math?  
How many miles was Lindbergh's flight across the Atlantic?  
How many hours was Lindbergh's flight?  
How many miles per minute did he fly?  
How high in inches did Goddard's first rocket go?

## Physical Sciences:

Study Hubble's law of the expanding universe. Share.  
Learn about radio frequencies and transmitters.  
Learn about the history of television.  
How are images and sound transmitted to TV now?  
How does a rocket work? Share. Experiment.  
Create a model of an atom.  
How did the iron lung work? Share.

## Fine Arts:

Draw a picture about a Character &/or Connection.  
Paint a picture about a C or C.  
Sculpt or create a replica of a C or C.  
Watch a documentary about a C or C. Share.  
Listen to early radio broadcasts like Roosevelt's Fireside Chats, the 1934 World Series, or various World War II broadcasts

## Life Skills:

What is xerography? Learn. Practice.  
Learn proper keyboarding techniques. Practice.  
Watch this video on [how computers work](#) or this [video](#).  
Try your hand at some [kid-friendly computer programming](#).

## Best Books:

*The Spirit of St. Louis* by Charles Lindbergh (abridged version available in Reader's Digest *Family Treasury of Great Biographies*, Volume VI)  
*Albert Einstein: Young Thinker* by Marie Hammontree (Childhood of Famous Americans series)  
*The Story of Science: Einstein Adds a New Dimension* by Joy Hakim

# Allegiances and Alliances: 1865-1895

## Characters and Connections:

Ku Klux Klan formed, 1865  
Otto Von Bismarck and the Prussian Wars [SW 4:7]  
Alaska purchased from Russia, 1867  
India formally made part of British Empire, 1877  
British forces in Afghanistan & South Africa [SW 4:12]  
The Orient Express, 1883  
The Statue of Liberty, 1885

## Presidents of the United States of America

Andrew Johnson, 1865-1869  
Ulysses S. Grant, 1869-1877  
Rutherford B. Hayes, 1877-1881  
James A. Garfield, 1881  
Chester A. Arthur, 1881-1885  
Gover Cleveland, 1885-1889, 1893-97  
Benjamin Harrison, 1889-1893

## Language Arts:

Read about a Character and/or Connection.  
Write a summary or an outline about a C or C.  
Write a story or poem about a C or C.  
Read a speech or book written by a C. Share.  
Write about why this Character is a hero?  
Read a campaign speech by a president.  
Read an inauguration speech by a president.

## Social Sciences:

Make a map to illustrate all C or C listed.  
Create a timeline to show all C or C listed.  
Read a biography on a C or C. Share  
Create a timeline for one Character's life.  
Create a map for one Character's life or city.  
Read "[Reasons for Being a Republican](#)" by Grant.  
Read "[Duties of American Citizenship](#)" 1883, T. Roosevelt

## Math:

How much did the U.S. pay for Alaska?  
How many square miles were purchased? feet?  
Calculate the price per square mile? feet?  
How many miles is the Orient Express?  
How long did it take to travel the Orient Express in hours? in minutes?  
How many stairs are in the Statue of Liberty?

## Physical Sciences:

Learn how trains worked in the 1800s. Share.  
Learn how trains today work. Share.  
Learn which trains are the fastest today and why.  
Learn about the weather in India. How does it vary by location?  
Learn about the topography (terrain) of Afghanistan.  
Learn about Bismarck's war strategies & weapons.

## Fine Arts:

Draw a picture about a Character &/or Connection.  
Paint a picture about a C or C.  
Sculpt or create a replica of a C or C.  
Watch a documentary about a C or C. Share.  
Memorize a poem or speech. Present.  
Read "[The Celebrated Jumping Frog of Calaveras County](#)" by Mark Twain.  
Watch 1938 movie [Adventures of Tom Sawyer](#).

## Life Skills:

Take a field trip on a train.  
Visit a train museum or model train exhibit.  
If in Utah, visit Promontory Point.  
If in NYC, visit the Statue of Liberty.  
If in Missouri, visit the Mark Twain Museum.

## Best Books:

[Adventures of Tom Sawyer](#) by Mark Twain  
[Murder on the Orient Express](#) by Agatha Christie