

Streamliners

Teacher's Guide

Streamliners: America's Lost Trains" offers insights into American history topics including transportation, technology, government regulation, geography, engineering and industrial design. You can use part or all of the film, or delve into the rich resources available on this website to learn more, either in a classroom or on your own. The following activities are grouped into four categories: history, economics, geography, and civics. You can also read a few helpful hints for completing the activities.

EXCLUSIVE CORPORATE FUNDING FOR AMERICAN EXPERIENCE PROVIDED BY LIBERTY MUTUAL.
MAJOR FUNDING PROVIDED BY THE ALFRED P. SLOAN FOUNDATION, THE CORPORATION FOR PUBLIC BROADCASTING AND PUBLIC TELEVISION VIEWERS.
AMERICAN EXPERIENCE IS PRODUCED FOR PBS BY WGBH BOSTON.



Streamliners

Teacher's Guide

History

1. Divide the class into four groups and construct an illustrated timeline of United States railroad history. Each group should cover one of the following periods: 1860-1900, 1900-1930, 1930-1945, and 1945-present. Groups must include on their portion of the timeline the most important events (including names and dates) required to understand the development of railroads during their time period. (Groups may consult the [timeline](#) [www.pbs.org/wgbh/americanexperience/features/timeline/streamliners/] for ideas.) Groups also must include at least one illustration on their timeline. Each group, though, is free to design its timeline as it wishes. After each group has made an oral presentation that explains each of the entries and illustrations on its portion of the timeline, the class should combine all timelines.

2a. Read the essay on the [Chicago Century of Progress Exposition](#) (www.pbs.org/wgbh/americanexperience/features/general-article/streamliners-worldsfair/), which describes visitors' interest in "futuristic" products like the new streamlined trains. Can you think of any products that are available today -- or that are now being developed -- that promise new and exciting technological advances? (You might want to check magazines like *Popular Mechanics* for ideas.) If possible, bring an ad or other description of this product to class.

2b. Have students read Isaac Asimov's 1964 article, "[Visit to the World's Fair of 2014.](#)" Divide the class into small groups and have each group investigate one of the predictions Asimov made for life 50 years into the future. Ask each group to assess the prediction: was it

EXCLUSIVE CORPORATE FUNDING FOR AMERICAN EXPERIENCE PROVIDED BY LIBERTY MUTUAL.
MAJOR FUNDING PROVIDED BY THE ALFRED P. SLOAN FOUNDATION, THE CORPORATION FOR PUBLIC BROADCASTING AND PUBLIC TELEVISION VIEWERS.
AMERICAN EXPERIENCE IS PRODUCED FOR PBS BY WGBH BOSTON.



accurate or not? Does anything exist today similar to what Asimov describes? Does the group think the prediction should become reality, and if so, why? The group can also build a model of a predicted object, whether or not it exists today, and present their findings to the rest of the class. You may also choose as a group to make predictions about life fifty years from now, following the example of Asimov, and make a wall display of these predictions. [As of 2011, a subscription to the New York Times is necessary to read the article at www.nytimes.com/books/97/03/23/lifetimes/asi-v-fair.html]

EXCLUSIVE CORPORATE FUNDING FOR *AMERICAN EXPERIENCE* PROVIDED BY LIBERTY MUTUAL.
MAJOR FUNDING PROVIDED BY THE ALFRED P. SLOAN FOUNDATION, THE CORPORATION FOR PUBLIC BROADCASTING AND PUBLIC TELEVISION VIEWERS.
AMERICAN EXPERIENCE IS PRODUCED FOR PBS BY WGBH BOSTON.



Streamliners

Teacher's Guide

Economics

1. Read about the contributions of [Edward G. Budd](#)

(www.pbs.org/wgbh/americanexperience/features/biography/streamliners-ebudd/)

and [Charles F. Kettering](#)

(www.pbs.org/wgbh/americanexperience/features/biography/streamliners-kettering/) to the development of the *Zephyr*. What new technology did each man help create?

Research information about the *Zephyr* online. How many passengers could fit in the main passenger compartment? Where did first-class passengers sit? What part of the train was related to the U.S. Post Office? What photos can you find of products (besides trains) that adopted the streamlined design?

EXCLUSIVE CORPORATE FUNDING FOR AMERICAN EXPERIENCE PROVIDED BY LIBERTY MUTUAL.
MAJOR FUNDING PROVIDED BY THE ALFRED P. SLOAN FOUNDATION, THE CORPORATION FOR PUBLIC BROADCASTING AND PUBLIC TELEVISION VIEWERS.
AMERICAN EXPERIENCE IS PRODUCED FOR PBS BY WGBH BOSTON.



Streamliners

Teacher's Guide

Geography

1. Read the story of the [Dawn-to-Dusk Run](#)

(www.pbs.org/wgbh/americanexperience/features/general-article/streamliners-dawn-to-dusk/). Then draw or photocopy a map of the United States. Label the start and end points of the Burlington (Pioneer) *Zephyr's* record-breaking run in 1934, and draw a red line connecting these two points. Label this route with the distance, time, average speed, and date of this famous run.

2. Read the original *New York Times* article on the *Zephyr's* record-breaking run. Then write a one-paragraph summary of the article that includes the most important facts, as well as any facts you found particularly interesting or surprising. [As of 2011, a subscription to the *New York Times* is necessary to read the article.]

3. Visit the [Amtrak website](#) (www.amtrak.com). Click on "Routes" to view a map of Amtrak routes across the United States. (a) Which Amtrak route would you use to repeat the famous 1934 run of the *Zephyr*? (b) What are the start and end points of this route?

EXCLUSIVE CORPORATE FUNDING FOR AMERICAN EXPERIENCE PROVIDED BY LIBERTY MUTUAL.
MAJOR FUNDING PROVIDED BY THE ALFRED P. SLOAN FOUNDATION, THE CORPORATION FOR PUBLIC BROADCASTING AND PUBLIC TELEVISION VIEWERS.
AMERICAN EXPERIENCE IS PRODUCED FOR PBS BY WGBH BOSTON.



Streamliners

Teacher's Guide

Civics

1. Read about the development of the [Interstate Commerce Commission](http://www.pbs.org/wgbh/americanexperience/features/general-article/streamliners-commerce/) (www.pbs.org/wgbh/americanexperience/features/general-article/streamliners-commerce/). (a) Why did the federal government begin to regulate the railroads? (b) How did these regulations affect the railroads' ability to compete against other forms of transportation?
2. Hold a class debate on the following question: Should the federal government continue to use tax dollars to support passenger rail service, as it now does through Amtrak? Begin by dividing the class into two groups based on whether they personally favor or oppose federal support. Then tell the groups that they will be responsible for arguing the *opposing* opinion -- in other words, the group consisting of students who favor federal support will argue against it, and vice versa. For background, students should review website materials such as the essay on the development of the [Interstate Commerce Commission](http://www.pbs.org/wgbh/americanexperience/features/general-article/streamliners-commerce/) (www.pbs.org/wgbh/americanexperience/features/general-article/streamliners-commerce/). Also encourage students to do outside research on topics such as the history of Amtrak and the use of government funds for highway construction.

EXCLUSIVE CORPORATE FUNDING FOR AMERICAN EXPERIENCE PROVIDED BY LIBERTY MUTUAL.
MAJOR FUNDING PROVIDED BY THE ALFRED P. SLOAN FOUNDATION, THE CORPORATION FOR PUBLIC BROADCASTING AND PUBLIC TELEVISION VIEWERS.
AMERICAN EXPERIENCE IS PRODUCED FOR PBS BY WGBH BOSTON.



Streamliners

Teacher's Guide

Helpful Hints

History

1. Timelines should contain the most important developments in the history of American railroads and be historically accurate.

2a. Possibilities include voice-recognition software, hybrid gasoline/electric cars, flat-screen televisions, and hypersonic jets.

2b. Asimov includes a wide range of predictions: glowing walls that will change color at the touch of a button, underground houses and cities, "autom meals" that can be ordered and completely prepared in your own kitchen by your appliances, space-based power stations that harness the energy of the sun, vehicles that travel hovering above the ground or water on compressed air, moving sidewalks in downtown areas, sight-sound telephones where you see the person you're talking to, wall-screen television sets.

Economics

1. Budd developed a way to fabricate stainless steel for train bodies. Kettering developed a lightweight diesel engine.

2. (a) 40 passengers; the solarium/observation lounge; the railway post office (b) refrigerator, car, ice bucket

Geography

1. The distance between Denver and Chicago was 1,015 miles; the time was 13 hours, 5 minutes; the average speed was 77.5 miles per hour; the date was May 26, 1934.

EXCLUSIVE CORPORATE FUNDING FOR AMERICAN EXPERIENCE PROVIDED BY LIBERTY MUTUAL.
MAJOR FUNDING PROVIDED BY THE ALFRED P. SLOAN FOUNDATION, THE CORPORATION FOR PUBLIC BROADCASTING AND PUBLIC TELEVISION VIEWERS.
AMERICAN EXPERIENCE IS PRODUCED FOR PBS BY WGBH BOSTON.



2. Paragraphs should include the name of the train, the route it covered, and the distance, time, and average speed.

3. (a) California Zephyr (b) Chicago and Oakland/San Francisco

Civics

1. (a) The public demanded railroad regulation in response to abuses like stock manipulations, and rate discrimination. (b) It helped cars, trucks, and planes gain popularity at the expense of railroads.

2. Arguments against continued federal support include the idea that railroads, like other businesses, should only exist if they are economically self-supporting. Arguments for continued federal support include the reductions in traffic congestion, pollution, and gasoline consumption that increased use of railroads would provide.

EXCLUSIVE CORPORATE FUNDING FOR *AMERICAN EXPERIENCE* PROVIDED BY LIBERTY MUTUAL.
MAJOR FUNDING PROVIDED BY THE ALFRED P. SLOAN FOUNDATION, THE CORPORATION FOR PUBLIC BROADCASTING AND PUBLIC TELEVISION VIEWERS.
AMERICAN EXPERIENCE IS PRODUCED FOR PBS BY WGBH BOSTON.

