DOCUMENTS

Interpreting Alternative Viewpoints in Primary Source Documents

"A Knack at Contriving"

Why Americans Invented Things

What factors explain American inventiveness during the nation's early industrial decades?

Debating the DOCUMENTS

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Contents

Teacher Introduction

Using Primary Sources

Primary sources are called "primary" because they are first-hand records of a past era or historical event. They are the raw materials, or the evidence, on which historians base their "secondary" accounts of the past.

A rapidly growing number of history teachers today are using primary sources. Why? Perhaps it's because primary sources give students a better sense of what history is and what historians do. Such sources also help students see the past from a variety of viewpoints. Moreover, primary sources make history vivid and bring it to life.

However, primary sources are not easy to use. They can be confusing. They can be biased. They rarely all agree. Primary sources must be interpreted and set in context. To do this, students need historical background knowledge. *Debating the Documents* helps students handle such challenges by giving them a useful framework for analyzing sources that conflict with one another.

"Multiple, conflicting perspectives are among the truths of history. No single objective or universal account could ever put an end to this endless creative dialogue within and between the past and the present."

From the 2011 Statement on Standards of Professional Conduct of the Council of the American Historical Association.

The Debating the Documents *Series*

Each *Debating the Documents* booklet includes the same sequence of reproducible worksheets. If students use several booklets over time, they will get regular practice at interpreting and comparing conflicting sources. In this way, they can learn the skills and habits needed to get the most out of primary sources.

Each *Debating the Documents* Booklet Includes

- **Suggestions for the Student and an Introductory Essay.** The student gets instructions and a one-page essay providing background on the booklet's topic. A time line on the topic is also included.
- **Two Groups of Contrasting Primary Source Documents.** In most of the booklets, students get one pair of visual sources and one pair of written sources. In some cases, more than two are provided for each. Background is provided on each source. *Within each group, the sources clash in a very clear way*. (The sources are not always exact opposites, but they do always differ in some obvious way.)
- **Three Worksheets for Each Document Group.** Students use the first two worksheets to take notes on the sources. The third worksheet asks which source the student thinks would be most useful to a historian.
- **One DBQ.** On page 20, a document-based question (DBQ) asks students to write an effective essay using all of the booklet's primary sources.

How to Use This Booklet

1. Have students read "Suggestions for the Student" and the Introductory Essay.

Give them copies of pages 5–7. Ask them to read the instructions and then read the introductory essay on the topic. The time line gives them additional information on that topic. This reading could be done in class or as a homework assignment.

2. Have students do the worksheets.

Make copies of the worksheets and the pages with the sources. Ask students to study the background information on each source and the source itself. Then have them take notes on the sources using the worksheets. If students have access to a computer, have them review the primary sources digitally.

3. "Debate the documents" as a class.

Have students use their worksheet notes to debate the primary source documents as a class. Urge students to follow these ground rules:

- Use your worksheets as a guide for the discussion or debate.
- Try to reach agreement about the main ideas and the significance of each primary source document.
- Look for points of agreement as well as disagreement between the primary sources.
- Listen closely to all points of view about each primary source.
- Focus on the usefulness of each source to the historian, not merely on whether you agree or disagree with that source's point of view.

4. Have students do the final DBQ.

A DBQ is an essay question about a set of primary source documents. To answer the DBQ, students write essays using evidence from the sources and their own background knowledge of the historical era. (See the next page for a DBQ scoring guide to use in evaluating these essays.)

The DBQ assignment on page 20 includes guidelines for writing a DBQ essay. Here are some additional points to make with students about preparing to write this kind of essay.

The DBQ for this Booklet (see page 20):

The steamboat, the telegraph, the sewing machine, even false teeth—what made individual Americans so inventive in the 1800s?

- Analyze the question carefully.
- Use your background knowledge to set sources in their historical context.
- Question and interpret sources actively. Do not accept them at face value.
- Use sources meaningfully to support your essay's thesis.
- Pay attention to the overall organization of your essay.

Complete DBQ Scoring Guide

Use this guide in evaluating the DBQ for this booklet. Use this scoring guide with students who are already familiar with using primary sources and writing DBQ essays.

Excellent Essay

- Offers a clear answer or thesis explicitly addressing all aspects of the essay question.
- Does a careful job of interpreting many or most of the documents and relating them clearly to the thesis and the DBQ. Deals with conflicting documents effectively.
- Uses details and examples effectively to support the thesis and other main ideas. Explains the significance of those details and examples well.
- Uses background knowledge and the documents in a balanced way.
- Is well written; clear transitions make the essay easy to follow from point to point. Only a few minor writing errors or errors of fact.

Good Essay

- Offers a reasonable thesis addressing the essential points of the essay question.
- Adequately interprets at least some of the documents and relates them to the thesis and the DBQ.
- Usually relates details and examples meaningfully to the thesis or other main ideas.
- Includes some relevant background knowledge.
- May have some writing errors or errors of fact, as long as these do not invalidate the essay's overall argument or point of view.

Fair Essay

- Offers at least a partly developed thesis addressing the essay question.
- Adequately interprets at least a few of the documents.
- Relates only a few of the details and examples to the thesis or other main ideas.
- Includes some background knowledge.
- Has several writing errors or errors of fact that make it harder to understand the essay's overall argument or point of view.

Poor Essay

- Offers no clear thesis or answer addressing the DBQ.
- Uses few documents effectively other than referring to them in "laundry list" style, with no meaningful relationship to a thesis or any main point.
- Uses details and examples unrelated to the thesis or other main ideas. Does not explain the significance of these details and examples.
- Is not clearly written, with some major writing errors or errors of fact.

Suggestions to the Student

Using Primary Sources

A primary source is any record of evidence from the past. Many things are primary sources: letters, diary entries, official documents, photos, cartoons, wills, maps, charts, etc. They are called "primary" because they are first-hand records of a past event or time period. This *Debating the Documents* lesson is based on two groups of primary source documents. Within each group, the sources conflict with one another. That is, they express different or even opposed points of view. You need to decide which source is more reliable, more useful, or more typical of the time period. This is what historians do all the time. Usually, you will be able to learn something about the past from each source, even when the sources clash with one another in dramatic ways.

How to Use This Booklet

1. Read the one-page introductory essay.

This gives you background information that will help you analyze the primary source documents and do the exercises for this *Debating the Documents* lesson. The time line gives you additional information you will find helpful.

2. Study the primary source documents for this lesson.

For this lesson, you get two groups of sources. The sources within each group conflict with one another. Some of these sources are visuals, others are written sources. With visual sources, pay attention not only to the image's "content" (its subject matter) but also to its artistic style, shading, composition, camera angle, symbols, and other features that add to the image's meaning. With written sources, notice the writing style, bias, even what the source leaves out or does not talk about. Think about each source's author, that author's reasons for writing, and the likely audience for the source. These considerations give you clues as to the source's historical value.

3. Use the worksheets to analyze each group of primary source documents.

For each group of sources, you get three worksheets. Use the "Study the Document" worksheets to take notes on each source. Use the "Comparing the Documents" worksheet to decide which of the sources would be most useful to a historian.

4. As a class, debate the documents.

Use your worksheet notes to help you take part in this debate.

5. Do the final DBQ.

"DBQ" means "document-based question." A DBQ is a question along with several primary source documents. To answer the DBQ, write an essay using evidence from the documents and your own background history knowledge.

"A Knack at Contriving"

Peter Cooper ran the Canton Iron Works in Baltimore when he began to build a new kind of steam locomotive for the Baltimore and Ohio Railroad Company. The B & O's route was too curved and hilly for the British engineers who studied it. Yet in 1830, Cooper's *Tom Thumb* engine made its test run, hauling 24 persons at 12 miles an hour.

Cooper later explained his success: "I had a knack at contriving."

This phrase nicely sums up the spirit of inventiveness for which the young United States was by 1830 becoming known around the world. Starting soon after the American Revolution, a steady stream of new devices began to transform American life—the cotton gin, the steamboat, new kinds of plows, threshing and reaping machines, the telegraph, canals, railroads, the elevator, vulcanized rubber, even porcelain false teeth, along with all kinds of new machine tools for manufacturing a growing variety of goods.

In the late 1700s, a few British immigrants arrived with some of the technical knowledge that had helped launch that nation's Industrial Revolution. Samuel Slater, for example, was able to use what he had learned in Britain to help build the first water-powered textile mill in the United States. Nevertheless, the flood of American-made innovations soon gave the Industrial Revolution here a distinctly local flavor.

This early American Industrial Revolution was based on water power, machine tool innovation, and the steam engine. A more massive industrialization based on steel, oil, electricity, and assembly-line production would drastically alter America after the Civil War. Still, it was this earlier industrial growth that made the later changes possible.

What explains this flowering of America's great "knack at contriving"?

Some stress the new republic's respect for individual effort, practical knowledge, and freedom to experiment. They say the American Revolution strengthened these traits by freeing the individual to strive for a better life in all sorts of ways. Self-trained go-getters like Ben Franklin, Samuel Morse, and Eli Whitney are examples of this spirit.

Others say the causes were more complex. French, British, and other "enlightened" thinkers and doers in Europe played a role. So also did a small but dedicated group of skilled mechanics and machine builders here in America. They were given a big boost by the nation's free-market economy and a new patent system that allowed innovators to benefit from their creations. The nation's vast spaces gave a push especially to innovation in the areas of transportation (roads, canals, railroads, steamboats) and communication (the telegraph). Agriculture fueled innovation in farm tools and machinery.

The dream of "interchangeable parts" long motivated many American innovators. In spite of what historians used to say, Eli Whitney did not develop a system for making muskets in which all parts were identical and interchangeable. Two government-funded armories did most of that work, and they only succeeded in the 1820s and '30s, long after Whitney's efforts. Moreover, machine production in most other areas did not lead to interchangeability before the Civil War.

Yet machinery itself did begin to transform all areas of American life in these years. By the 1850s, Europe's industrial powerhouse, Great Britain, was already trying to understand why the U.S. was catching up with it so quickly. Perhaps the sources in this booklet will help you also understand why this happened.

American Inventions Time Line

1752 Benjamin Franklin's electricity experiments lead him to develop a lightning rod to conduct electricity from lightning safely into the ground.

1794 Eli Whitney patents his cotton gin. He makes very little money off it, since others find it so easy to create their own versions.

1797 Eli Whitney agrees to make 10,000 muskets for the U.S. Army using "interchangeable parts." Some historians mistakenly claim he did this. In fact, the ability to produce interchangeable parts was developed slowly by the War Department at its Springfield and Harpers Ferry armories.

1797 Steam is used to run a pumping station providing water for Philadelphia.

1805 Oliver Evans builds a steam-powered engine to dredge waters near the Philadelphia docks.

1807 Robert Fulton's steamboat the *Clermont* makes its first voyage upstream to Albany from New York City.

1825 The 363-mile Erie Canal opens. It connects the Hudson River with Lake Erie.

1827 The Baltimore and Ohio Railroad is chartered to run from Baltimore to the Ohio River in Virginia. At first, it uses sails and horses to haul cars on its tracks.

1829–1830 Peter Cooper of New York builds the *Tom Thumb*, for the Baltimore & Ohio Railroad. It carries its first passengers in August 1830.

1831 Cyrus McCormick develops his reaper. It cuts grain much faster than by hand. However, he sells few reapers until after the Civil War.

1834 John and Hiram Pitts get a patent for a threshing machine that automatically separates grain from chaff.

1842 Crawford Williamson Long performs the first operation using an ether-based anesthesia.

1844 Charles Goodyear gets a patent for his discovery of the sulfur-based "vulcanization" of rubber, a process to keep the rubber elastic in both hotter and colder temperatures. He never makes any money from his discovery. Samuel Morse introduces his telegraph by sending the message "What hath God wrought?" from Washington, D.C., to Baltimore.

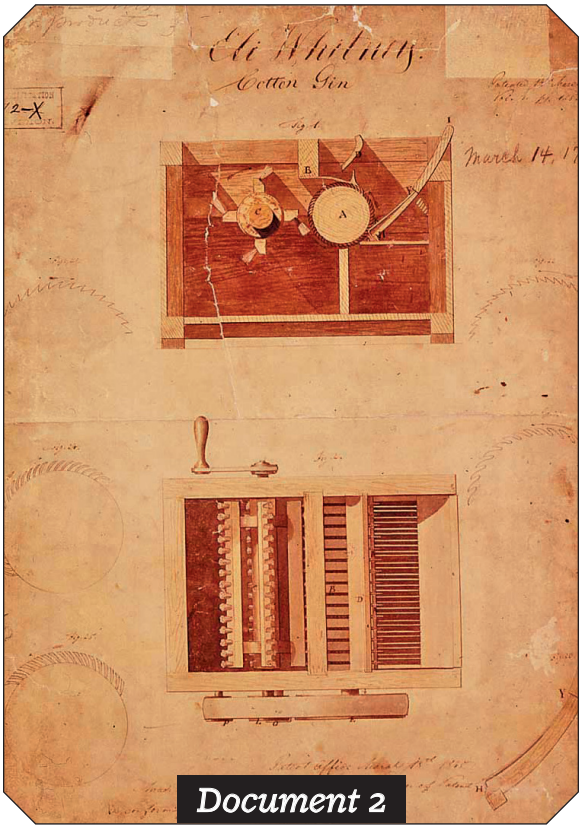
1857 Elisha Graves Otis demonstrates his passenger elevator at the Crystal Palace Exposition in New York. Its braking system keeps the elevator from falling.

1859 Edwin Drake drills his oil well at Titusville, Pennsylvania, touching off the world's first oil boom.

1860 Working for Oliver Fisher Winchester's arms company, B. Tyler Henry turns a breech-loading rifle into a new lever-action repeating rifle. The rifle soon becomes famous as "the Winchester."

Visual Primary Source Documents 1 & 2

Library of Congress: Prints and Photographs Division, LC-USZ62-96739



Patent Drawing, 1794. Courtesy of the National Archives

Information on Documents 1 & 2

Document 1. A painting from the early 1800s shows Benjamin Franklin and an assistant conducting his famous kite experiment to learn more about lightning and electricity. The experiment led to the invention of the lightning rod. For many Americans, Franklin became the greatest example of an open-minded, independent American inventor.

Document 2. Eli Whitney was another example of the lone, independent inventor. Whitney's cotton gin easily removed seeds from cotton. The drawing on the right is part of Whitney's 1794 patent application for his cotton gin. As the drawing shows, the gin was a very simple machine, but its impact on life was huge. In the U.S., the cotton gin was operated mainly by slaves on cotton plantations throughout the South. It made cotton much cheaper to produce. As a result, cotton spread through the South, and slavery spread with it.