Ben Franklin: Highlighting the Printer

Lesson Author
Jeannette Bennett, Federal Reserve Bank of St. Louis–Memphis Branch

Standards and Benchmarks (see page 24)

Lesson Description
In this lesson, students will learn that money is an invention. They will read and analyze an essay focusing primarily on one aspect of Ben Franklin’s life—his work as a printer—and how he was an inventor and entrepreneur who also promoted the use of currency in the United States. Students will cite specific textual evidence regarding problems and solutions and will answer questions and complete a timeline. By using evidence and information gleaned from text, students will write a fictitious social-media post defending the selection of Ben Franklin’s portrait for the $100 note.

Grade Level
5-8

Time Required
90-120 minutes

Concepts
Currency
Entrepreneur
Entrepreneurship
Human capital
Money
Profit
Timeline

©2012, Federal Reserve Bank of St. Louis. Permission is granted to reprint or photocopy this lesson in its entirety for educational purposes, provided the user credits the Federal Reserve Bank of St. Louis, www.stlouisfed.org/education.
Lesson Plan  
Ben Franklin: Highlighting the Printer

Objectives
Students will be able to

• differentiate between an inventor and an entrepreneur;
• define entrepreneur, entrepreneurship, money, and profit;
• define human capital;
• explain how an investment in human capital can affect a person’s productivity and income;
• identify portraits on U.S. currency;
• identify important events in Ben Franklin’s printing career;
• describe Ben Franklin’s entrepreneurial behaviors;
• identify problems and solutions noted in an essay; and
• defend the placement of Ben Franklin’s portrait on the $100 note.

Materials
• Visuals 1 and 2
• Handouts 1, 2, 3, and 6, one copy for each student
• Handout 4, dates cut apart
• Handout 5, cut into 22 event cards. (If you have more than 22 students, make duplicate cards.)
• Handouts 1 and 5 Answer Keys
• Four to five sample items and/or pictures of common inventions (For example, the telephone, Band-Aid, ballpoint pen, Post-it Note, zipper, Velcro, light bulb, pair of bifocal glasses, or potato chip)
• Set of eight different-colored highlighters for each pair of students (alternatively, eight different-colored crayons or pencils)
• Masking tape
• 5 x 8-inch unlined index card (or substitute ½ sheet of white construction paper) for each student

Procedure
1. Begin the class by displaying pictures or samples of inventions. (For example, the telephone, Band-Aid, ballpoint pen, Post-it Note, zipper, Velcro, light bulb, pair of bifocal glasses, or potato chip)
Lesson Plan

Ben Franklin: Highlighting the Printer

2. Call on students to identify each invention on display (or pictured) and briefly explain its function. Challenge students to imagine living in the “old days” before these items existed. Ask the students how things would have been different. (Answers will vary depending on the item.)

3. Ask the students to define “inventor” and “invention” using their own words. Tell the students that an inventor designs, develops, or creates a new product or service. Explain that an invention is often a solution to a problem that provides improvement in some way.

4. Referring to the inventions displayed previously, ask the students to name a problem that each invention helped solve. (Answers will vary according to the invention. Examples: Problem: I need to bandage a cut finger. Solution: Band-Aids are a solution for easier first aid for minor cuts. Problem: I need to fasten my pants. Solution: Zippers are a solution for fastening clothes. Problem: When I write myself a reminder note, I lose the note. Solution: Post-it Notes stick to a surface and do not get lost easily.)

5. Display Visual 1: Definitions. Read the definitions and discuss as noted:
   - Explain that entrepreneur is a French word meaning someone who starts his or her own business and takes a risk. There is a risk involved because there is no guarantee that the business will succeed. Entrepreneurs: Individuals who are willing to take risks in order to develop new products and start new businesses. They recognize opportunities, enjoy working for themselves, and accept challenges.
   - Profit: The amount of revenue (income) that remains after a business pays the costs of producing a good or service. If the income (revenue) from the business is more than the expenses incurred in the business, the entrepreneur earns a profit. Profit is an entrepreneur’s income.
   - Entrepreneurship: A characteristic of people who assume the risk of organizing productive resources to produce goods and services.
   - Other characteristics of entrepreneurs: Accountable, confident, disciplined, educated, energetic, goal oriented, hardworking, knowledgeable about their businesses, willing to learn continuously, enthusiastic about their work, persistent, responsible, and calculated risk-takers. Ask the class why these would be important traits for an entrepreneur. (Answers will vary but may include that entrepreneurs have made a commitment to make it on their own. They have no safety net, such as a guaranteed salary or weekly paycheck.)

6. Explain that an inventor creates a new good or service and may or may not take that product to market—that is, produce and sell that product. An entrepreneur may have a business that involves his own invention or someone else’s invention. (For example: A businessman who owns a car dealership and sells cars is an entrepreneur. He did not invent the car.)
7. Display Visual 2: Definitions and read the definitions.
   - **Human capital**: The knowledge and skills that people obtain through education, experience, and training. Human capital is the combination of skills and education that gives a worker value in the labor market.
   - **Investment in human capital**: The efforts people put forth to acquire human capital. These efforts include education, training, and practice.

8. Ask the students the following questions:
   - What are some ways to invest in human capital? (Answers will vary but may include going to school, reading informational books, on-the-job training, or eating healthfully.)
   - How might investment in human capital affect people’s income? (Answers will vary but should include that people will earn more because they have better skills, such as more knowledge that will make them capable of getting their job done more effectively and/or efficiently.)

9. Hold up any denomination of U.S. currency. Explain that currency refers to paper bills, as opposed to coins. There are also other terms for currency: money, because currency is exchanged for goods and services, and note, because the phrase “Federal Reserve Note” is at the top of the face of the currency. The term note is a formal term that we often interchange with the term bill.

10. Define money as anything widely accepted in exchange for goods and services. In the United States, our currency, called dollars, is made of special paper that is 75 percent cotton and 25 percent linen.

11. Explain that paper money (currency) was invented to solve a problem. In early America, there were many ways to exchange goods and services, including barter, foreign coins, wampum (Indian beads), gunpowder, fish, furs, and tobacco. Exchange was sometimes difficult, and paper currency was an invention that made exchange easier. Explain that although early U.S. paper currency was different from what is used today, it served the same purpose.

12. Tell students that there are seven different denominations of U.S. currency printed today. The portraits currently appearing on each denomination were adopted in 1929 by the Secretary of the Treasury. These portraits were chosen for two reasons: First, by law, only the portrait of a deceased individual may appear on U.S. currency. Second, the selection must be of people that are familiar and easily recognized by the American public. (Source: https://moneyfactory.gov/resources/faqs.html.)

13. Distribute a copy of Handout 1: Currency Portraits. Tell students to work with a partner to find answers for the questions on the handout. Allow students to use the Internet, books, and/or other sources to find answers.
14. Allow time for students to complete the work. Use *Handout 1: Currency Portraits—Answer Key* to discuss the answers.

15. Explain that to counterfeit something means to make a fake or false version of it. Ask the students to discuss what they think the effects of having counterfeit currency in circulation are. Point out the following:
   - Our currency has value because we trust that we can buy goods and services with it.
   - Counterfeit currency reduces trust in the value of our currency and could make people reluctant to accept our currency as payment for work or the purchase of goods and services.
   - The federal government makes it difficult for people to successfully counterfeit U.S. currency by redesigning it every 7 to 10 years.

16. Ask the students which of the seven denominations they would choose if they only could have one. *(Of course, they will likely choose the $100 bill because it is worth the most!)* Point out that the portrait on the $100 bill is of Benjamin Franklin, who was both an inventor and an entrepreneur and contributed much to the development of modern-day currency.

17. Distribute *Handout 2: Ben Franklin, Printer* to each student. Point out that Ben Franklin accomplished much in his lifetime and made numerous contributions to society. The essay in the handout mainly explores only one aspect of his life—printing and publishing. Allow students time to read the essay.

18. Discuss the following questions:
   - How did Ben invest in his human capital even without a formal education? *(Answers will vary but should include that he read on his own, developed skill as an apprentice, received on-the-job training, and worked hard.)*
   - How did Ben’s investment in himself affect his productivity and income? *(Ben’s investment in himself made him a good printer and a good writer. By developing his skills, his work was well received and he was well paid. Being a good printer and writer made him a wealthy man who could afford to retire from private business at an early age.)*
   - What are some of Ben Franklin’s entrepreneurial behaviors? *(Answers will vary but may include the following: confident; disciplined; energetic; diligent; knowledgeable about his business; willing to learn continuously; enthusiastic about his work; persistent; responsible; goal oriented; and willing to take calculated risks, such as with his newspaper and almanac.)*
   - Which of Ben Franklin’s inventions are mentioned in the essay? *(The Franklin stove and an anti-counterfeiting technique)*
• Was Ben Franklin an entrepreneur? (Yes, he had his own printing business, started his own newspaper, and created Poor Richard’s Almanack.)

• The text mentions several problems and solutions. Some problems and solutions pertain to Ben’s life and some to society in general. All of the solutions, however, were provided by Ben. What were some of these problems and solutions? (Answers will vary but may include the following: Ben was able to attend school only for a few years, but he educated himself through work and reading. Ben did not like apprentice work, so he set out on his own. Ben faced competition in the printing and newspaper businesses, so he made his paper interesting and lowered its price by selling advertising. People made counterfeit currency, so Ben invented an anti-counterfeiting technique. Many people in Colonial America did not have ready access to books or other publications, so Ben created Poor Richard’s Almanack, which had a wide variety of useful and entertaining information.)

19. Distribute Handout 3: Ben Franklin, Printer—Highlighted. Read the directions. (Students are to use a different-colored highlighter [or crayon or pencil] to highlight at least one reference for each category noted on Handout 3 and found in the Handout 2 essay. A description or summary of the highlighted information should be written in the spaces on Handout 3.) Distribute highlighters and divide the class into pairs to work together to complete the assignment.

20. Call on students to share answers aloud and lead the class in a discussion of Handout 3. (Answers will vary, but accept answers that reference the requested information.)

21. Tell the students they will create a timeline that highlights key events in Franklin’s life as a printer. Explain that a timeline is a display of dates in chronological order for a period of time that highlights important information. It often includes pictures or written comments for highlighted dates.

22. Tape a 5-foot-long piece of masking tape (to accommodate the dates) to the classroom wall to create a timeline.

23. Equally distribute the dates from Handout 4: Timeline Dates (cut out in advance) on the masking tape timeline by securing each date to the time line with additional masking tape. Explain that this timeline is divided into decades, or 10-year sections. The caption “Ben Franklin: Highlighting the Printer” can be written above the timeline on a sentence strip.

24. Give one event card from Handout 5: Timeline Event Cards to each student. (If there are more than 22 students, duplicate cards may be given.)

25. Instruct students to find the dates of the noted items on the event cards by referring to the Handout 2 essay.
26. Give each student a 5 x 8-inch blank unlined index card (or substitute ½ sheet of white construction paper). Instruct students to write the date of their event at the top of the card and write the brief description of the event under the date using only the top one-third of the card. In the remaining section of the index card, tell students to illustrate the event. (The illustrations should be simple drawings that are representative of the event.)

27. Tell the students to place their completed cards at the appropriate date on the timeline. (Secure each card with rolled masking tape behind the card.) Place cards below or above the timeline with a short strip of masking tape linking the card to the approximate date. If more than one event requires the same space along the timeline, stack the cards. One card can be placed and the others can be placed directly below or above, creating a column of events for that particular year.

28. Tell the students that although Ben Franklin died more than 200 years ago, he is remembered today as one of America’s greatest patriots and people all over the world continue to remember him as an inventor and entrepreneur.

Closure

29. Review the content of the lesson by asking the following questions:
   - What is an inventor? (An inventor is a person who designs, develops, or creates a new product or service.)
   - What are entrepreneurs? (Entrepreneurs are individuals who are willing to take risks in order to develop new products and start new businesses. They recognize opportunities, enjoy working for themselves, and accept challenges.)
   - What is entrepreneurship? (Entrepreneurship is a characteristic of people who assume the risk of organizing productive resources to produce goods and services.)
• What are other characteristics that entrepreneurs possess? (Answers will vary but may include accountable, confident, disciplined, educated, energetic, goal oriented, hardworking, knowledgeable about their businesses, willing to learn continuously, enthusiastic about their work, persistent, responsible, or calculated risk-takers.)

• What is profit? (Profit is the amount of revenue [income] that remains after a business pays the costs of producing a good or service.)

• What is money? (Money is anything widely accepted in exchange for goods and services.)

• What is human capital? (Human capital is the knowledge and skills that people obtain through education, experience, and training.)

• What human capital did Ben Franklin possess? (Answers will vary but should include that he continued to further his education and increase skills throughout his lifetime, which resulted in him being a very skilled and educated man.)

• What is investment in human capital? (Investment in human capital is the efforts people put forth to acquire human capital. These efforts include education, training, and practice.)

• How did Franklin invest in his human capital? (Answers will vary but should include that he read on his own, developed skill as apprentice, received on-the-job training, and worked hard.)

• In what way did Franklin’s human capital contribute to his success as an entrepreneur and inventor? (Answers will vary but should include the following: Ben’s diligent work resulted in him being a good printer and a good writer. By developing his skills, his work was well received and he was well paid. Being a good printer made him a wealthy man who could afford to retire from private business at an early age.)

• Which patriots are featured on our U.S. currency? ($1, George Washington; $2, Thomas Jefferson; $5, Abraham Lincoln; $10, Alexander Hamilton; $20, Andrew Jackson; $50, Ulysses S. Grant; $100, Benjamin Franklin)

• What are some of Ben Franklin’s inventions? (Answers will vary as students may know of items not mentioned in this lesson. This lesson notes the Franklin stove and an anti-counterfeiting technique for colonial currency.)

• How was Ben Franklin an entrepreneur? (Franklin owned his own printing business, started his own newspaper, and created Poor Richard’s Almanack.)

• What problems did Franklin encounter and what solutions did he devise? (Answers will vary but should include the following: 1) Currency was easily counterfeited, so Franklin invented a technique involving leaf designs to deter counterfeiting. 2) Franklin faced competition from other newspapers, so he figured out how to create a market for his newspapers. He did this by making his paper interesting and selling advertising so he could sell his paper for less. 3) People in
Colonial America did not have ready access to books or other publications, so Franklin created Poor Richard's Almanack.

- How is our currency protected against counterfeiting today? (Our currency is redesigned by the government every 7 to 10 years to stay ahead of counterfeitors.)

Assessment

30. Tell the students that a sign in the window of Franklin's print shop in Philadelphia shared one of his many quotes. Share this quote with the class:

“If you would not be forgotten, as soon as you are dead and rotten, either write things worth reading or do things worth the writing.”

31. Discuss the following:

- What does this quote mean? (You should do something or write something while you are alive that will make you remembered after you are dead. So, do something or write something worth remembering!)

- In what way did Franklin live up to this quote? (Answers will vary but should include reference to Franklin’s contributions to society—his inventions and writings.)

- Why do you think that Franklin displayed this quote in his window? (Answers will vary but should include that this quote is likely a goal that he tried to attain, so he displayed it so he would remember it.)

32. Distribute Handout 6: Defending the Portrait to each student and read the instructions. (Students will write a social-media post defending the selection of Ben Franklin’s portrait for our highest-valued currency today—the $100 bill. The post should reference the two sources noted on Handout 6 (Handout 2 and Ben Franklin and the Birth of Paper Money, accessible via the noted link) and be at least two paragraphs in length. This may be an out-of-class assignment. Although the assignment is meant to be a fictitious social-media post, you may decide to post some of these on the class website.)

Visual 1: Definitions

**Entrepreneurs:** Individuals who are willing to take risks in order to develop new products and start new businesses. They recognize opportunities, enjoy working for themselves, and accept challenges.

**Profit:** The amount of revenue (income) that remains after a business pays the costs of producing a good or service.

**Entrepreneurship:** A characteristic of people who assume the risk of organizing productive resources to produce goods and services.

**Other characteristics of entrepreneurs:** Accountable, confident, disciplined, educated, energetic, goal oriented, hardworking, knowledgeable about their businesses, willing to learn continuously, enthusiastic about their work, persistent, responsible, and calculated risk-takers.
Visual 2: Definitions

**Human capital:** The knowledge and skills that people obtain through education, experience, and training.

**Investment in human capital:** The efforts people put forth to acquire human capital. These efforts include education, training, and practice.
### Handout 1: Currency Portraits

<table>
<thead>
<tr>
<th>Portrait</th>
<th>Who am I?</th>
<th>Which note has my portrait?</th>
<th>U.S. President? Yes or No</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Portrait 1" /></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image2" alt="Portrait 2" /></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image3" alt="Portrait 3" /></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image4" alt="Portrait 4" /></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image5" alt="Portrait 5" /></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image6" alt="Portrait 6" /></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image7" alt="Portrait 7" /></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><img src="image8" alt="Portrait 8" /></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Handout 1: Currency Portraits—Answer Key

<table>
<thead>
<tr>
<th>Portrait</th>
<th>Who am I?</th>
<th>Which note has my portrait?</th>
<th>U.S. President? Yes or No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ben Franklin</td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Ulysses S. Grant</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Andrew Jackson</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Alexander Hamilton</td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Abraham Lincoln</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Thomas Jefferson</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>George Washington</td>
<td></td>
<td></td>
<td>Yes</td>
</tr>
</tbody>
</table>

Ben Franklin was born in Boston in 1706, the fifteenth of seventeen children born to Josiah Franklin, a poor and honest candlemaker. When Ben was eight years old, he began attending school but had to drop out after less than two years to help in his father’s business. He continued to read and learn on his own and find opportunities to increase his skills and knowledge.

When Ben was twelve, he began to work as an apprentice to his brother, James, who was nine years older and had a print shop in Boston. Ben agreed to work for his brother until he was 21 years old. James agreed to teach Ben the printing business and provide him with clothes, room, and board. Being an apprentice meant that Ben had to obey his older brother.

Ben was a hard worker and quickly became skilled at printing and dreamed of being a writer as well. He saw a chance to be a published writer in 1720 when James started a newspaper. Ben knew that James would never agree to print anything he wrote, so he devised a plan to write and submit articles using a pseudonym, Silence Dogood. This was the first pen name used by Franklin but would not be the last. The popular articles were printed for about six months before his brother discovered that Ben was the author. James was not happy with Ben and his trickery.

Ben grew increasingly unhappy working as an apprentice. He and James did not get along. Ben grew tired of having to obey James, and there were conflicts. Finally, when Ben was 17 he decided to leave his brother’s print shop and set out on his own. He traveled to Philadelphia and a few years later, in 1724, was off to London to continue learning and earning a living in the printing business.

After a short time in London, Ben returned to Philadelphia. In 1729, he became an entrepreneur when he bought a print shop and began printing his own newspaper, the Pennsylvania Gazette. Taking the risk of entrepreneurship brought challenges for Ben. There were already other printing businesses and newspapers in town, so he had competition. To make a profit and stay in business, he had to find ways to make his newspaper better than the others.

Franklin worked hard to get ahead of his competition and create a market for the Pennsylvania Gazette. He knew that for his paper to sell it had to be interesting to read, so he reported on topics of local interest, such as crime, disease, disasters, and accidents. He also started a new style of journalism by publishing articles that represented different points of view. Using these approaches, Franklin found success in the newspaper business, but something else helped as well.

Ben wanted to sell his newspaper for less than the competition. He knew people would not buy his paper if it were too expensive, so he devised a way to lower his cost—he would sell newspaper advertisements. But this idea didn’t work at first because Ben couldn’t convince other businesses to buy advertisements! Franklin didn’t give up on the idea, though; he just tried a different approach. He began to advertise one of his own inventions, the Franklin stove, which he invented in 1741. When sales of the stove boomed, other businesses took notice and began to buy advertisements in the Pennsylvania Gazette. Franklin’s profit increased because he was able to produce his paper at a lower cost and sell his newspaper at a lower price. Advertising was a win-win situation for Ben and his advertisers. Placing an ad in a
newspaper was a new idea to most people, and Ben helped make it popular. By using advertising, Ben had created a market for his newspaper, moved ahead of his competition, and earned a profit. Franklin continued to own an interest in the Pennsylvania Gazette for many years after he had retired from the business. He finally sold his interest in the newspaper in 1766.

In Ben’s day in Colonial America, basic information could be hard to come by. Few people owned books or had access to books and other publications. After all, there were no televisions, radios, telephones, satellites, or communication devices like we have today. Newspapers carried only limited information. Ben saw people’s need for information as an opportunity and began publishing Poor Richard’s Almanack in 1732. Using the pseudonym Richard Saunders, Franklin wrote this annual publication as a service to educate and stimulate the intellect of readers. The Almanack (or Almanac) was important in colonial America. The Almanack provided entertainment and information. It featured weather predictions, astrology charts, sunrise and sunset information, and gave advice. Franklin also included wise quotes, and many of the quotes from the Almanack are still commonly used. For example, “Early to bed, early to rise makes a man healthy, wealthy, and wise” and “A penny saved is a penny earned” are familiar to most people today.

Ben was innovative. He used humor, cartoons, illustrated news stories, and letters to the editor. He used a serial format for the Almanack so readers would look forward to the next edition and purchase it again. He designed this publication to include something for everyone: puzzles, poetry, maps, recipes, and even selections that could be used to teach children how to read. It was so successful that sales were second only to the Bible, with annual sales climbing to 10,000 volumes. Ben’s skill in writing and printing earned him respect—and a lot of profit!

Although Franklin did not create the first paper money in America, he contributed much to its evolution, and his printing business was a vehicle from which he could share ideas and promote actions. For example, in 1729, he wrote and published a pamphlet on the need for paper currency in the colonies. His idea was to give real value to currency by backing the currency with land. The idea was accepted and Franklin began designing the currency for the colonies.

Beginning in 1731, Ben was paid to print all paper currency issued in Pennsylvania and then printed currency for Delaware and New Jersey. This first paper currency was easy to counterfeit and presented a great concern. In 1737, however, Ben invented an anti-counterfeiting technique. Franklin knew that leaves have complex details that would be almost impossible to duplicate, so he used a copperplate press to transfer a leaf image onto the paper currency. Counterfeiters could not easily duplicate the fine lines and irregular patterns made from the leaves. He continued to improve the anti-counterfeiting technique and guarded the secret process.
Franklin continued to use his printing and writing skills to support his ideas. In 1765, he wrote a proposal for a national paper currency. With many kinds of currency being used throughout the colonies, confusion and inconvenience were problems. As a solution, Congress authorized the printing of a national currency in 1775.

Franklin’s printing business was very profitable, and he was able to retire from private business when he was 42 years old. In his retirement, Franklin continued to serve his country as a patriot and did so for the remainder of his life. He worked hard to attain his own goals and to share with his community.

Although Ben’s formal education was less than two years, he stepped up to the challenge to improve his skills and invested in himself by working hard, reading, and making a commitment to lifelong learning. He also invested in society by sharing his knowledge and ideas. For example, he founded the first public lending library in 1731. He believed making books available to everyone was an investment in both individuals and society.

Ben began writing his autobiography in 1771. When he died in 1790, he had earned many titles, including scientist, diplomat, inventor, philosopher, economist, and statesman. He had two honorary doctorate degrees, including an honorary doctorate awarded by Oxford University in 1762 for his scientific accomplishments. After this award, he went by “Doctor Franklin.” However, in his will he listed “printer” first after his name. From his own hand, the assumption can be made that printing remained the most important facet of his life.

Through his anti-counterfeiting invention, Franklin contributed greatly to the use of paper money. Although different from the currency of Franklin’s day, our modern currency has advanced high-tech, anti-counterfeiting techniques, including watermarks, security threads, and color-shifting ink. Today, U.S. currency is printed by the Bureau of Engraving and Printing, which is part of the U.S. Treasury Department. The Treasury Department redesigns U.S. currency every 7 to 10 years, as advances in security technology allow them to stay ahead of advances in counterfeiting. But with each alteration of our money, the government pursues a solution to a problem that remains with the nation since colonial days. Today we honor Ben Franklin each time we use a $100 bill, which features his portrait.
Lesson Plan

Ben Franklin: Highlighting the Printer

Bibliography for Handout 2: Ben Franklin, Printer

http://en.wikipedia.org/wiki/Benjamin_Franklin
http://en.wikipedia.org/wiki/Benjamin_Franklin#Ancestry
http://en.wikipedia.org/wiki/Franklin_stove
https://www.fi.edu/benjamin-franklin/resources
http://ourfriendben.wordpress.com/2010/09/07/money-for-nothing/
http://wiki.answers.com/Q/Who_did_Ben_Franklin_sell_the_Pennsylvania_Gazette_to&altQ=How_long_did_Ben_Franklin_publish_the_pennsylvania_gazette&isLookUp=1
http://www.brainyquote.com/quotes/authors/b/benjamin_franklin_10.html
https://www.fi.edu/benjamin-franklin/resources
http://www.history.org/Foundation/journal/Summer07/counterfeit.cfm
https://librarycompany.org/portfolio-item/2006-benjamin-franklin/
http://www.loc.gov/exhibits/treasures/franklin-printer.html
http://www.pbs.org/benfranklin/l3_wit_read.html
Handout 3: Ben Franklin, Printer—Highlighted (page 1 of 2)

Directions: Use a different-colored highlighter (or pencil or crayon) to highlight at least one reference for each category below found in the essay in Handout 2: Ben Franklin, Printer. Describe and/or list each highlighted reference in the appropriate category.

1. Human Capital and/or Investment in Human Capital

2. Inventor

3. Problem

4. Solution
Lesson Plan

Handout 3: Ben Franklin, Printer—Highlighted (page 2 of 2)

5. Entrepreneur

6. Profit (Income) from Business

7. Currency Printing

8. Anti-Counterfeiting Technique
Handout 4: Timeline Dates

<table>
<thead>
<tr>
<th>1700</th>
<th>1710</th>
</tr>
</thead>
<tbody>
<tr>
<td>1720</td>
<td>1730</td>
</tr>
<tr>
<td>1740</td>
<td>1750</td>
</tr>
<tr>
<td>1760</td>
<td>1770</td>
</tr>
<tr>
<td>1780</td>
<td>1790</td>
</tr>
</tbody>
</table>
### Handout 5: Timeline Event Cards

<table>
<thead>
<tr>
<th>Dropped out of school</th>
<th>First trip to London</th>
</tr>
</thead>
<tbody>
<tr>
<td>Started working in his father's candle shop</td>
<td>First attended school</td>
</tr>
<tr>
<td>Began apprenticeship in his brother's printing shop</td>
<td>Left his apprenticeship and went to Philadelphia</td>
</tr>
<tr>
<td>Became owner and publisher of the <em>Pennsylvania Gazette</em></td>
<td>Founded the first public lending library</td>
</tr>
<tr>
<td>Began printing currency for Pennsylvania</td>
<td>Began annual publication of <em>Poor Richard's Almanack</em></td>
</tr>
<tr>
<td>Invented an anti-counterfeiting technique using images of leaves and special paper</td>
<td>Retired from private business</td>
</tr>
<tr>
<td>Wrote a proposal for a national paper currency</td>
<td>Born in Boston</td>
</tr>
<tr>
<td>Used his first pseudonym, Silence Dogood</td>
<td>Ben Franklin died</td>
</tr>
<tr>
<td>Began using the pseudonym Richard Saunders</td>
<td>Sold all of his share of the <em>Pennsylvania Gazette</em></td>
</tr>
<tr>
<td>Invented the Franklin stove</td>
<td>Began writing his autobiography</td>
</tr>
<tr>
<td>Awarded honorary doctorate from Oxford</td>
<td>Wrote pamphlet on need for paper currency</td>
</tr>
</tbody>
</table>
### Handout 5: Timeline Event Cards—Answer Key

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dropped out of school</td>
<td>1716</td>
</tr>
<tr>
<td>Started working in his father’s candle shop</td>
<td>1716</td>
</tr>
<tr>
<td>Began apprenticeship in his brother’s printing shop</td>
<td>1718</td>
</tr>
<tr>
<td>Became owner and publisher of the <em>Pennsylvania Gazette</em></td>
<td>1729</td>
</tr>
<tr>
<td>Began printing currency for Pennsylvania</td>
<td>1731</td>
</tr>
<tr>
<td>Invented an anti-counterfeiting technique using images of leaves and special paper</td>
<td>1737</td>
</tr>
<tr>
<td>Wrote a proposal for a national paper currency</td>
<td>1765</td>
</tr>
<tr>
<td>Used his first pseudonym, Silence Dogood</td>
<td>1720</td>
</tr>
<tr>
<td>Began using the pseudonym Richard Saunders</td>
<td>1732</td>
</tr>
<tr>
<td>Invented the Franklin stove</td>
<td>1741</td>
</tr>
<tr>
<td>Awarded honorary doctorate from Oxford</td>
<td>1762</td>
</tr>
<tr>
<td>First trip to London</td>
<td>1724</td>
</tr>
<tr>
<td>First attended school</td>
<td>1714</td>
</tr>
<tr>
<td>Left his apprenticeship and went to Philadelphia</td>
<td>1723</td>
</tr>
<tr>
<td>Founded the first public lending library</td>
<td>1731</td>
</tr>
<tr>
<td>Began annual publication of <em>Poor Richard’s Almanack</em></td>
<td>1732</td>
</tr>
<tr>
<td>Retired from private business</td>
<td>1748</td>
</tr>
<tr>
<td>Born in Boston</td>
<td>1706</td>
</tr>
<tr>
<td>Ben Franklin died</td>
<td>1790</td>
</tr>
<tr>
<td>Sold all of his share of the <em>Pennsylvania Gazette</em></td>
<td>1766</td>
</tr>
<tr>
<td>Began writing his autobiography</td>
<td>1771</td>
</tr>
<tr>
<td>Wrote pamphlet on need for paper currency</td>
<td>1729</td>
</tr>
</tbody>
</table>
Handout 6: Defending the Portrait

Ben Franklin displayed this quote—his own—in the window of his print shop in Philadelphia:

“If you would not be forgotten, as soon as you are dead and rotten, either write things worth reading or do things worth the writing.”

Did Franklin live up to this quote? Write a post for social media to defend the selection of Ben Franklin’s portrait for the highest-valued denomination of U.S. currency printed today—the $100 note. Refer to the things he wrote that were worth reading or the things he did worth writing about, as noted in Handout 2: Ben Franklin, Printer and Ben Franklin and the Birth of Paper Money found at http://www.philadelphiafed.org/publications/economic-education/ben-franklin-and-paper-money-economy.pdf. The post should include at least one reference to each source and should be at least two paragraphs in length.
Standards and Benchmarks

National Standards in Economics

Standard 11: Money makes it easier to trade, borrow, save, invest, and compare the value of goods and services. The amount of money in the economy affects the overall price level. Inflation is an increase in the overall price level that reduces the value of money.

- Benchmark 1, Grade 4: Money is anything widely accepted as final payment for goods and services.

Standard 13: Income for most people is determined by the market value of the productive resources they sell. What workers earn primarily depends on the market value of what they produce.

- Benchmark 2, Grade 8: To earn income people sell productive resources. These include their labor, capital, natural resources, and entrepreneurial talents.
- Benchmark 5, Grade 8: Peoples’ incomes, in part, reflect choices they have made about education, training, skill development, and careers. People with few skills are more likely to be poor.

Standard 14: Entrepreneurs take on the calculated risk of starting new businesses, either by embarking on new ventures similar to existing ones or by introducing new innovations. Entrepreneurial innovation is an important source of economic growth.

- Benchmark 1, Grade 4: Entrepreneurs are individuals who are willing to take risks, to develop new products, and start new businesses. They recognize opportunities, like working for themselves, and accept challenges.
- Benchmark 2, Grade 8: Entrepreneurs organize resources to produce goods and services because they expect to earn profits.
- Benchmark 5, Grade 8: In addition to profits, entrepreneurs respond to other incentives, including the opportunity to be their own boss, the chance to achieve recognition, and the satisfaction of creating new products or improving existing ones. In addition to financial losses, other disincentives to which entrepreneurs respond include the responsibility, long hours, and stress of running a business.

Common Core State Standards: Literacy in History/Social Studies and Technical Subjects, Grades 6-8

History/Social Studies

- Key Ideas and Details
  RH.6-8.1: Cite specific textual evidence to support analysis of primary and secondary sources.

- Craft and Structure
  RH.6-8.4: Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies.
• Integration of Knowledge and Ideas
  RH.6-8.7: Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.

Writing Standards
• Text Types and Purposes
  WHST.6-8.1: Write arguments focused on discipline-specific content.
  • Introduce claim(s) about a topic or issue, acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically.
  • Support claim(s) with logical reasoning and relevant, accurate data and evidence that demonstrate an understanding of the topic or text, using credible sources.
  • Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence.
  • Establish and maintain a formal style.
  • Provide a concluding statement or section that follows from and supports the argument presented.

National Standards for History, Grades 5-12

Historical Thinking Standards
• Standard 1: Chronological Thinking
  • Interpret data presented in time lines and create time lines by designating appropriate equidistant intervals of time and recording events according to the temporal order in which they occurred.

U.S History Content Standards for Grades 5-12:
Era 2: Colonization and Settlement (1585-1763)
• Standard 2: How political, religious, and social institutions emerged in the English colonies.
  • C. The student understands social and cultural change in British America.