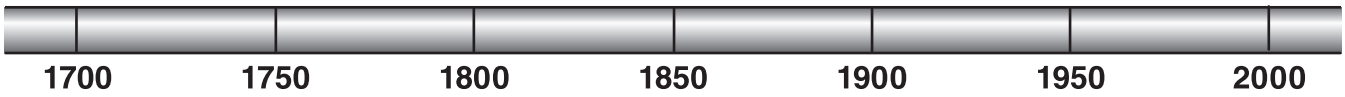
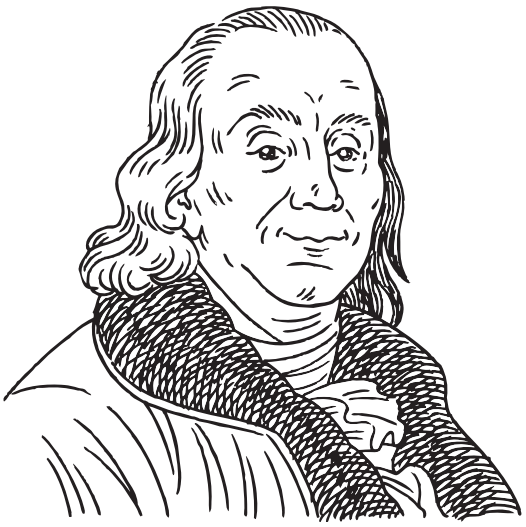
Table of Contents



Focus on a Colonial Inventor: Ben Franklin

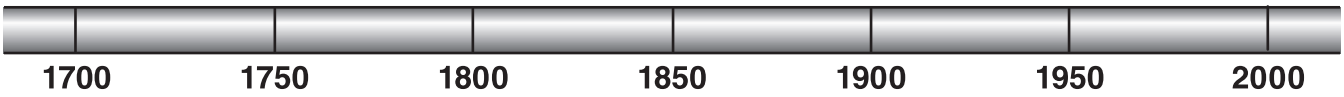
Benjamin Franklin is a model for the typical American inventor. From his youth, he saw needs and tried to create practical solutions. He was interested in swimming as a boy and wanted to go faster through the water. He observed the birds and other animals that swept rapidly through the water and designed his own paddles for hands and feet. He went faster, but they were uncomfortably heavy, so he sometimes used a kite in a good breeze to pull him across a river.



Ben would use a kite, of course, in his most famous experiment. He attached a long, pointed wire to a kite and a key to the kite string near his hand. During a lightning storm, he felt the electric shock from the key. Ben had proved that lightning was a form of electricity. He was fortunate the electric shock didn't kill him, but his accounts of the experiment made him famous throughout Europe, where he was honored by universities and scientific organizations. Franklin used the information from the experiment to invent the lightning rod, which protected homes and barns from lightning strikes, a major cause of fire in colonial America. He also entertained friends and important community leaders with a series of electrical experiments, including efforts to electrocute a turkey and send electric shocks through his friends.

Franklin was a very successful printer and publisher of *Poor Richard's Almanack*, an annual publication filled with advice, weather predictions, and witty sayings that amused readers. Many of his other inventions centered on business, personal, and community needs. The Franklin stove was more efficient for heating homes and cooking. He invented a stepladder stool, a rocking chair with a fan, and a device for getting books from high shelves. Later, he invented bifocal glasses to help his aging eyes read better.

Some of Franklin's inventions were community-based. He helped organize the first circulating library in America, a fire department for Philadelphia, and suggested ways to protect the community from attack, deepen rivers, dispose of garbage, and keep the streets clean. He helped start a university and studied science subjects as diverse as comets, hurricanes, the behavior of insects, and medicine. Franklin was truly a creative genius and a model for every future American inventor.



Biographies

The biographies listed on page 48 recount the lives of famous American inventors. Some of the biographies focus on the personal lives of inventors. Others are concerned with the way the inventions were made and how they became important in American life.

Assignment

1. Read one of the suggested inventor biographies from the list on page 48 or another suggested by your teacher.
2. Complete the Discussion Notes below about your subject.
3. Use these Discussion Notes as ideas for sharing with your reading circle or class.

Discussion Notes

1. Why was this inventor important? _____

   _____

2. What interesting facts did you learn about your inventor? _____

   _____

3. How did the life and experiences of the inventor's youth affect his or her career as an inventor?

   _____

   _____

4. Name and describe three inventions or improvements on inventions that your person created.
   - **a.** _____
   - **b.** _____
   - **c.** _____

5. Which of your person's ideas, designs, or inventions was the most important? Explain your choice.

   _____

   _____

   _____

6. What was the greatest challenge your inventor faced? _____

   _____

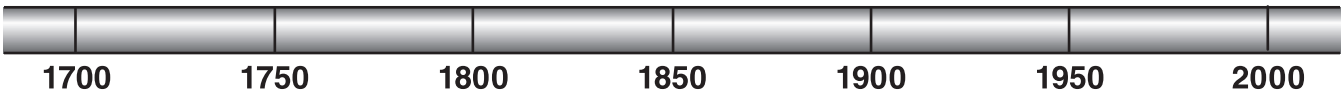
7. Are one or more of the inventions your subject created still in use today in some form or as the basis for other inventions? Where are they used? _____

   _____

8. Would you have liked to have known this inventor? Explain your answer.

   _____

   _____



Selected Biographies of American Inventors

Ben Franklin

Fritz, Jean. What's the Big Idea, Ben Franklin? Coward, McCann, & Geoghegan, 1976. (An amusing, easy-to-read biography of Franklin as an inventor.)

Giblin, James Cross. The Amazing Life of Benjamin Franklin. Scholastic, 2000. (A brief but comprehensive account of the life of Franklin as a creative thinker and patriotic leader.)

Harness, Cheryl. The Remarkable Benjamin Franklin. National Geographic, 2005. (A well-written and colorfully illustrated review of Franklin's career.)

Wright Brothers

Busby, Peter. First to Fly: How Wilbur and Orville Wright Invented the Airplane. Crown, 2003. (A good basic work on the life and work of the Wright brothers.)

Collins, Mary. Airborne: A Photobiography of Wilbur and Orville Wright. National Geographic, 2003. (This work issued to celebrate the 100th anniversary of the historic flight has particularly clear explanations of the Wrights' technological achievements.)

MacLeod, Elizabeth. The Wright Brothers: A Flying Start. Kids Can Press, 2002. (A well-illustrated, clever story of the great flight.)

Benjamin Banneker

Maupin, Melissa. Benjamin Banneker. The Child's World, 2000. (An easy, well-illustrated account of Banneker's life and work.)

Thomas Alva Edison

Mason, Paul. Thomas A. Edison. Raintree, 2002. (An excellent overview of the inventor's interests and career.)

Price-Groff, Claire. Thomas Alva Edison: Inventor and Entrepreneur. Watts, 2003. (A detailed account of Edison's inventions and business life.)

Williams, Brian. Thomas Alva Edison. Heinemann, 2001. (A complete overview of Edison's inventive career.)

George Washington Carver

Carey, Charles W. George Washington Carver. The Child's World, 1909. (A good introduction to Carver's life and contributions.)

MacLeod, Elizabeth. George Washington Carver: An Innovative Life. Kids Can Press, 2007. (An interesting and visual account of this inventor's life and career.)

Alexander Graham Bell

Reid, Struan. Alexander Graham Bell. Heinemann, 2001. (A complete and graphic account of Bell and his many inventions.)

Ross, Stewart. Alexander Graham Bell. Raintree, 2001. (A well-illustrated account of Bell's inventions.)

Williams, Brian. Bell and the Science of the Telephone. Barron's, 2006. (A very graphic, clear, and light account of Bell's discovery.)

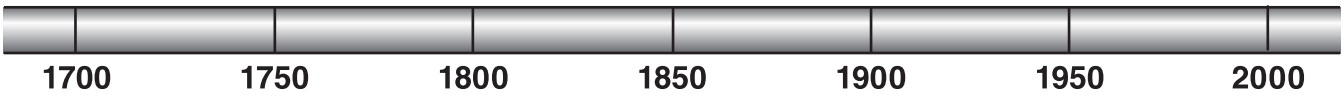
Robert Fulton

Pierce, Morris A. Robert Fulton and the Development of the Steamboat. PowerPlus Books, 2003. (A very detailed and visual account of the Fulton's many interests.)

Other Biographies

Marx, Christy. Grace Hopper: The First Woman to Program the First Computer in the United States. Rosen, 2004. (An interesting account of Grace Hopper's career.)

Riddle, John and Whiting, Jim. Stephen Wozniak and the Story of Apple Computer. Mitchell Lane, 2002. (A brief, easy-to-read account of the inventor's life.)



Write an Inventor's Biography

Directions: Choose one of the inventor biographies listed on page 48 or another recommended by your teacher. Use the following graphic organizer as a cluster for writing a 4-paragraph biography of your inventor. To start, complete each section in the blank organizer on page 50.

Early Life

- date
- place of birth
- schooling
- childhood interests
- personal facts about childhood and teen years
- family information

Focus on One Invention

- needs the inventor recognized
- problems to be solved
- type of invention
- costs
- uses of the invention
- success of the invention

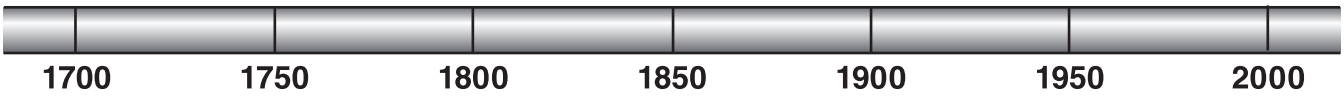
Inventor's Name

Other Inventions and Ideas

- other invention interests
- successes and failures
- the most interesting invention
- partners, colleagues, and assistants

Personal Evaluation

- your feelings about the inventor
- importance of the inventor and his or her inventions



Inventor Organizer

Directions: Complete the graphic organizer below using the organizer outline from page 49 to guide your ideas. Use your findings to help you write your 4-paragraph biography on your own paper.

Early Life

Focus on One Invention

Inventor's Name

Other Inventions and Ideas

Personal Evaluation

