



Educator Resource Center in the Lyman Library

Inventors and Their Inventions Bibliography

Adult Books

Aczel, Amir D. ***Pendulum: Léon Foucault and the Triumph of Science***. New York: Washington Square Press, 2003.

In 1851, struggling, self-taught physicist Léon Foucault performed a dramatic demonstration inside the Panthéon in Paris. By tracking a pendulum's path as it swung repeatedly across the interior of the large ceremonial hall, Foucault offered the first definitive proof – before an audience that comprised the cream of Parisian society, including the future emperor, Napoleon III – that the earth revolves on its axis.

Collins, Maurice. ***Ingenious Gadgets: Guess the Obscure Purpose of Over 100 Eccentric Contraptions***. Cincinnati: David and Charles, 2005.

From the watch camera of the 1900s to the perfect 1920s camping cup of tea, the intriguing creations in this book are a testament to human ingenuity and resourcefulness.

Denny, Mark. ***Ingenium: Five Machines That Changed the World***. Baltimore, MD: Johns Hopkins University Press, 2007.

Ingenium is medieval English vernacular for "an ingenious contrivance." In this fascinating book, physicist Mark Denny considers five such contrivances -- the bow and arrow, the waterwheel, the counterpoise siege engine (including the trebuchet), the pendulum clock anchor escapement, and the centrifugal governor -- and demonstrates how they literally changed the world.

Ellis, Charles D. ***Joe Wilson and the Creation of Xerox***. Hoboken, NJ: John Wiley & Sons, 2006.

Xerox and xerography are not only a part of our vocabulary, but part of our everyday life. Charley Ellis gives the reader a poignant understanding of just how this happened through the life, adventures, critical business decisions, and dreams of Joseph Wilson and a cadre of remarkable individuals.

Flack, Jerry D. ***Inventing, Inventions, and Inventors: A Teaching Resource Book***. Englewood, CO: Teacher Ideas Press, 1989.

Flack's exciting, mind-stretching activities illuminate a rich, interdisciplinary field of study. Investigating inventions of the past and the present, funny inventions, and inventions we may see in the future provides a natural springboard to creative thinking. Recommended books, films, organizations, and other learning resources are noted throughout the text. Grades 7-9.

Freiberger, Paul, ***Fire in the Valley: The Making of the Personal Computer***. New York: McGraw-Hill, 2000.

Fire in the Valley, tells the colorful and sometimes hilarious stories of the personal computer pioneers. Bill Gates, Paul Allen, Steve Jobs, Larry Ellison, Steve Wozniak, Ed Roberts, Ted Nelson are all there and more. The book also captures the medley of influences of the times--the wild risk-taking, the 60s consciousness, rebellion against bureaucracy, the kitchen-table engineering that were essential to the making of the personal computer.

Gies, Frances. ***Cathedral, Forge, and Waterwheel: Technology and Invention in the Middle Ages***. New York: HarperCollins Publishers, 1994.

An illuminating look at the monumental inventions of the Middle Ages, by the authors of *Life in a Medieval Castle*.

Hafner, Katie. ***Where Wizards Stay Up Late: The Origins of the Internet***. New York : Simon & Schuster, 1996.

Twenty five years ago, it didn't exist. Today, twenty million people worldwide are surfing the Net. *Where Wizards Stay Up Late* is the exciting story of the pioneers responsible for creating the most talked about, most influential, and most far-reaching communications breakthrough since the invention of the telephone.

McCartney, Scott. ***ENIAC: The Triumphs and Tragedies of the World's First Computer***. New York: Walker, 1999.

For all his genius, John von Neumann was not, as he is generally credited, the true father of the modern computer. That honor belongs to the two men who built the first programmable computer, the legendary ENIAC: John Mauchly and Presper Eckert. In *ENIAC*, two stories--of the three-year race to complete the computer and of the three-decade struggle to take credit for it--are intertwined and fully revealed to general readers for the first time.

O'Neill, John J. ***Prodigal Genius: The Life of Nikola Tesla, Inventor Extraordinary***. Book Tree, 2007.

First published in 1944 and long a favorite of Tesla fans, this is a definitive biography of the man without whom modern civilization would not exist. Nikola Tesla, pioneer of electrical engineering, was a close friend of Pulitzer Prize-winning author O'Neill, and here, O'Neill captures the man as a scientist and as a public figure,

Weber, Robert J. ***Forks, Phonographs, and Hot Air Balloons: A Field Guide to Inventive Thinking***. New York: Oxford University Press, 1993.

Using everyday objects most of us take for granted--from forks and Velcro to safety pins and doorknobs--noted cognitive psychologist Robert Weber takes a fascinating look at how our world of inventions came into being, and how the mind's problem-solving abilities gave them the forms they have.

Young Adult Books

- Bridgman, Roger Francis. ***1,000 Inventions & Discoveries***. London: DK Pub., 2006.
Summarizes 1000 notable inventions and discoveries of ancient and modern times, from 3,000,000 B.C. to the beginning of the twenty-first century A.D. Presented in chronological order.
- Casey, Susan. ***Women Invent: Two Centuries of Discoveries That have Shaped our World***. Chicago, IL: Chicago Review Press, 1997.
Uses short biographies of women inventors around the world to demonstrate how inventions come about.
- Daynes, Katie. ***The Story of Cars***. London: Usobrne, 2005.
Follows the invention of cars as well as their inventors throughout the ages.
- Glass, Andrew. ***The Wondrous Whirligig: The Wright Brothers' First Flying Machine***. New York: Holiday House, 2003.
Inspired by a model helicopter and encouraged by their parents and sister, young Orville and Wilbur Wright attempt to build a life-size helicopter from scrap.
- Kassinger, Ruth. ***Reinvent the Wheel: Make Classic Inventions, Discover your Problem-solving Genius, and Take the Inventor's Challenge***. New York: Wiley, 2001.
Discover the history and the science behind classic inventions and experience your own "Eureka!" moments of inspiration with the projects in this unique book.
- McGough, Roger. ***Dotty Inventions: And Some Real Ones Too***. London: Frances Lincoln Children's Books, 2004.
Dotty the inventor and her lab assistant, Digby, are invented to an invention competition at the National Science Museum; which one of her inventions will she enter?
- Platt, Richard. ***Eureka! Great Inventions and How They Happened***. New York: Kingfisher, 2003.
Eureka! looks at the instances in which some of the world's greatest inventions were conceived and explains how creative genius has enabled some individuals to look right through a problem and come up with a solution that has eluded rivals.
- Tomecek, Steve. ***What a Great Idea!: Inventions that Changed the World***. New York: Scholastic Nonfiction, 2003.
From the hand ax and mathematics to IC chips and the laser, each technological touchstone in human history is described and placed in historical context. Each profile includes the who (if we know it), how the idea developed and how it works, the immediate impact of the idea, and the technological 'children' of the idea. The

time span is 3500 BC to today. The author closes with an epilogue that looks into the future, a bibliography, and a list of great Web sites for young inventors.

Wallace, Joseph E. ***The Lightbulb***, New York: Atheneum Books for Young Readers, 1999.

When Thomas Alva Edison was a boy, he couldn't just flick a switch to turn on the light if he wanted to finish reading a book after the sun had set. He grew up in a world where there was no dependable, safe, and inexpensive source of artificial light. Then, in 1879, he invented the lightbulb, and houses, shops, factories, schools, streets, ballparks -- every place you could think of, indoors and out -- could at last be easily illuminated after dark. By turning night into day, the lightbulb changed the world.

Media

Bill Nye the Science Guy: Inventions/Computers [VHS]. 45 min. Disney Educational Productions, 1996.

Da Vinci and the Code He Lived By [DVD]. 91 min. The History Channel, 2005.

Against a backdrop of 15th century Italian opulence, *Da Vinci and the Code He Lived By* follows the original Renaissance man through glittering palaces of merchant princes, accusations of blasphemy, and whispers of betrayal and romance--all to satisfy a limitless desire for knowledge.

The Edison Effect: The Phonograph [VHS]. New Video Group, 1996.

Lewis Latimer: Renaissance Man, African American Inventor [VHS]. 45 min. Lemelson Center for the Study of Invention and Innovation, 1999.

This children's video recounts the inspiring life story of Lewis Latimer, a renowned inventor responsible for numerous patents. The video blends history, humor, and music into the tale through the use of puppetry and song.

Masters of Technology [VHS]. 150 min.

Meet five revolutionary thinkers who've changed the way we live today and discover how their scientific and technological innovations will shape our future. Such minds include Vinton Cerf (Father of the Internet), Donna Shirley (1st female to lead a NASA team), Geoffrey Ballard (developed hydrogen fuel cell), Robert Langer (inventor), and Burt Rutan (creates aircrafts). Two volumes.