Bibliography

Find links to featured Web sites in the online version of the Bibliography at: www.pbs.org/nova/archimedes/lrk.html

Key:
Ⓒ = Children
Ⓨⓐ = Young Adult
Ⓐ = Adult

Archimedes

Books

Archimedes and Sir Thomas Heath (translator).
The Works of Archimedes.
Mineola, NY: Dover, 2002.
Contains all known mathematical and scientific works of Archimedes. Ⓐ

Bendick, Jeanne and Laura M. Berquist.
Archimedes and the Door to Science.
Warsaw, ND: Bethlehem Books, 1997.
Describes Archimedes' life and his contributions to physics, astronomy, and math. Ⓨⓐ

Bradshaw, Gillian.
The Sand-Reckoner.
New York, NY: Tom Doherty Associates, 2000.
Explores the life of Archimedes through an historical novel. Ⓐ

Dijksterhuis, E. J.
Archimedes.
Princeton, New Jersey: Princeton Univ. Press, 1987.
Shows how Archimedes developed his ideas through the use of geometry. Ⓐ

Lafferty, Peter.
Archimedes.
New York, NY: Bookwright, 1991.
Examines the life, discoveries, and contributions of the ancient Greek mathematician. Ⓨⓐ

Stein, Sherman.
Archimedes: What Did He Do Besides Cry Eureka?
Washington, DC:The Mathematical Association of America, 1999.
Describes Archimedes' methods for determining center of gravity, floating bodies, the spiral, the sphere, pi, and more. Ⓨⓐ

Willis, Shirley.
Dime: ¿C mo flotan los barcos?
New York, NY: Franklin Watts, 1999.
Provides simple experiments that explore floating and sinking and Archimedes' principle of buoyancy. (Spanish) Ⓒ

Video

Infinite Secrets.
WGBH Boston Video, 2004.
Examines Archimedes' life, his work, and the science involved in the restoration of the Palimpsest. Ⓨⓐ

Web Sites

Infinite Secrets
www.pbs.org/nova/archimedes/
Provides articles, interviews, interactive activities, and resources related to the "Infinite Secrets" program. ⒸⓎⓐ

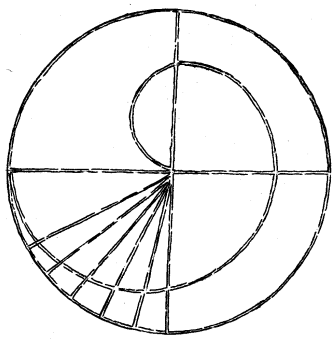
Archimedes and the Computation of Pi
www.math.utah.edu/~alfeld/Archimedes/Archimedes.html
Demonstrates how Archimedes calculated the value for pi by inscribing and circumscribing regular polygons around a circle. Ⓨⓐ

Archimedes Home Page
www.mcs.drexel.edu/~crorres/Archimedes/contents.html
Includes information on Archimedes' life and work as well as pictures and animations of his inventions. ⒸⓎⓐ

Archimedes' Palimpsest at the Walters Art Gallery
www.thewalters.org/archimedes/frame.html
Serves as the official site of information regarding the Palimpsest. ⒸⓎⓐ

Archimedes of Syracuse
www-gap.dcs.st-and.ac.uk/~history/Mathematicians/Archimedes.html
Provides a biography of Archimedes, mostly told in the words of Plutarch, a historian who lived in Greece in about A.D. 100. Ⓨⓐ

Archimedes of Syracuse:The Father of Buoyancy
www.engineering.usu.edu/jrestate/workshop/buoyancy.htm
Tells the story of how Archimedes used buoyancy to determine whether King Hiero's crown was pure gold. ⒸⓎⓐ



Math and Mathematicians

Books

Blatner, David.
The Joy of Pi.
New York, NY: Walker, 1997.

Explores pi and those fascinated with it—from the ancient Egyptians to the modern-day Chudnovsky brothers, who have calculated pi to billions of digits with a homemade supercomputer. (YA) (A)

Dunham, William.
Journey Through Genius: Great Theorems of Mathematics.
New York, NY: Wiley, 1990.

Investigates 17 landmark mathematical theorems,which span 2,300 years and represent the work of 10 mathematicians. (A)

Ehlert, Lois.
Color Farm.
New York, NY: Lippincott, 1990.

Introduces geometry with a barnyard full of animals made of colorful shapes. (C)

Enzensberger, Hans Magnus.
The Number Devil: A Mathematical Adventure.
New York, NY: Henry Holt, 1998.

Tells the story of 12-year-old Robert, a boy who hates math until he gets a visit from the Number Devil. (YA)

Joseph, George Gheverghese.
The Crest of the Peacock.
Princeton, NJ: Princeton University Press, 2000.`

Provides a tour of non-European math developments, including the influence of the Egyptians and Babylonians on the Greeks and the math of India and China. (A)

Kenda, Margaret, and Phyllis S. Williams.
Barron's Math Wizardry for Kids.
Hauppauge, NY: Barron's Educational Series, 1995.

Includes more than 200 math puzzles, games, designs, and projects. (C)

Murphy, Stuart.
Captain Invincible and the Space Shapes.
New York, NY: HarperCollins, 2001.

Follows Captain Invincible, who encounters three-dimensional shapes while piloting his spaceship through the skies. (C)

Nasar, Sylvia.
A Beautiful Mind.
New York, NY: Simon and Schuster, 2001.

Tells the story of John Nash, a man who spent a lifetime battling schizophrenia and who won the Nobel Prize for his contribution to the field of game theory. (A)

Schwartz, David M.
G Is for Googol: A Math Alphabet Book.
Berkeley, CA: Tricycle Press, 1998.

Explores geometry, number series, and math history through each letter of the alphabet. (YA)

Yount, Lisa.
A to Z of Women in Science and Math.
New York, NY: Facts on File, 1999.

Profiles more than 150 women from antiquity to the present who have made contributions in science and math. (YA)

Web Sites

Famous Problems in the History of Mathematics
www.mathforum.org/isaac/mathhist.html

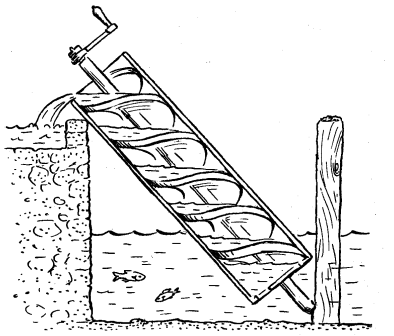
Explores the history and culture surrounding certain famous math problems and their solutions, including the Bridges of Königsburg, the value of pi, and several famous paradoxes. (YA) (A)

The MacTutor History of Mathematics Archive
www-history.mcs.st-and.ac.uk/history/index.html

Includes numerous biographies of notable mathematicians. Can be searched by name, location, time period, or subject. (YA) (A)

Mathematicians of the African Diaspora
www.math.buffalo.edu/mad/index.html
Primarily profiles biographies of mathematicians of African descent and includes a listing of organizations dedicated to minorities in math and science. (YA) (A)

Key:
(C) = Children
(YA) = Young Adult
(A) = Adult



Ancient Machines and Inventions

Books

Baldwin, Gordon C.
Inventors and Inventions of the Ancient World.
New York, NY: MacMillan, 1973.

Discusses inventions of the ancient world and cultures that produced them. (C)

Beshore, George.
Science in Early Islamic Culture.
New York, NY: F. Watts, 1998.

Describes the scientific discoveries in the Islamic world after the birth of Mohammed in A.D. 571 and discusses their impact on Western civilization. (C)(YA)

Gay, Kathleen.
Science in Ancient Greece.
Danbury, CT: Grolier, 1998.

Discusses the theories and discoveries of the ancient Greek philosophers and scientists and their impact on modern science. (C)(YA)

James, Peter and Nick Thorpe.
Ancient Inventions.
New York, NY: Ballentine Books, 1995.

Includes more than 90 inventions created before A.D. 1492. Entries are divided into sections such as "Military Technology" and "Communications." Each entry consists of the historical developments leading up to the invention, a biographical description of the inventor, and the story of the creation of the invention itself. (A)

Krebs, Robert E., and Carolyn A. Krebs.
Groundbreaking Scientific Experiments, Inventions, and Discoveries of the Ancient World.
Westport, CT: Greenwood Press, 2003.

Traces the history and development of approximately 100 discoveries, inventions, and experiments of the ancient world. (YA)(A)

Macaulay, David.
The Way Things Work.
Boston, MA: Houghton Mifflin, 1988.

Explains how many common things work. (C)(YA)

Shuter, Jane.
Discoveries, Inventions & Ideas.
Des Plaines, IL: Heineman Library, 1999.

Concentrates on the great discoveries, inventions, and ideas of the ancient Greeks from 800 B.C. to 146 B.C. Includes a glossary, an index, and a list of related books. (C)

Woods, Michael, and Mary B. Woods.
Ancient Machines: From Wedges to Waterwheels.
Minneapolis, MN: Runestone Press, 2000.

Discusses six simple machines invented from the Stone Age to the fall of the Roman Empire. (C)(YA)

Videos

In Search of History: Ancient Inventions.
History Channel Video, 1996.

Details the technological achievements of ancient civilizations from the pyramids to a battery built before the birth of Christ. (50 minutes) (YA)(A)

Ancient Inventions.
Discovery Channel Video, 1997.

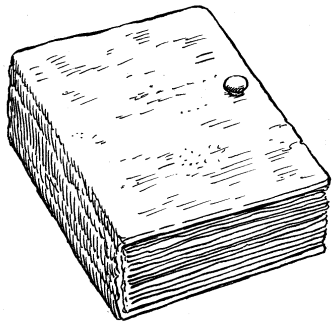
Takes a humorous look at ancient inventions and ideas. Covers the cultural background of ancient devices, how they were inspired, who invented them, what they were used for, and what impact they made on ancient societies. (3 volumes, 52 minutes each) (YA)(A)

Web Site

Museum of Ancient Inventions
www.smith.edu/hsc/museum/ancient_inventions/hsclist.htm

Provides a virtual museum of ancient inventions. Includes photos of replicas of different inventions and describes how these models were made. (C)(YA)(A)

Key:
(C) = Children
(YA) = Young Adult
(A) = Adult



History of Books and Bookmaking

Books

Ganeri, Anita.
The Story of Writing and Printing.
New York, NY: Oxford University Press, 1995.

Presents an overview, from ancient times to the present, of the evolution of writing, including the development of alphabets, writing instruments, inks and papers, and printing methods. (YA)

Johnson, Paul.
A Book of One's Own: Developing Literacy Through Making Books.
Portsmouth, NH: Heinemann, 1990.

Shows teachers how to teach kids to write, design, and bind a book. (A)

Kilgour, Frederick G.
The Evolution of the Book.
New York, NY: Oxford University Press, 1998.

Provides a history of the book in all its forms, from clay tablets to the electronic book. Highlights the inventors, engineers, and entrepreneurs who created the machinery of production and dissemination. (A)

Krensky, Stephen.
Breaking into Print: Before and After the Printing Press.
Boston, MA: Little, Brown and Company, 1996.

Describes the nature of books before the development of the printing press and the subsequent effect of that invention on civilization. (C) (YA)

Martin, Henri Jean, and Lydia G. Cochrane (translator).
The History and Power of Writing.
Chicago, IL: University of Chicago Press, 1995.

Examines forms and structures of writing throughout history, from as far back as the earliest efforts of ancient civilizations to medieval language studies. (A)

Olmert, Michael.
The Smithsonian Book of Books.
New York, NY: Wings Books, 1995.

Includes information on the history of books and the evolution of the printing industry, libraries, medieval illumination and modern illustration, the book trade, and methods of book conservation. (A)

The History of Making Books: From Clay Tablets, Papyrus Rolls, and Illuminated Manuscripts to the Printing Press.
New York, NY: Scholastic Trade, 1996.

Tells the story of the written word, from hieroglyphics to electronic libraries. Photographic illustrations and film overlays help exemplify the processes of illuminating a manuscript or printing by color separation. (C) (YA)

Key:
(C) = Children
(YA) = Young Adult
(A) = Adult