

Galilei, Galileo. Starry Messenger

In 1609, Galileo became the first astronomer to systematically observe the heavens with a telescope. The following year he published a book of his findings, which included drawings of the Moon's phases and the discovery of four moons orbiting Jupiter.

(A)



IN GALILEO'S WORDS

Bibliography

Find resources for Galileo, 16th and 17th century Italy, astronomy, and careers information in this bibliography.

The following icons indicate whether a resource is recommended for children, young adult, and/or adult audiences.

(C) children

(YA) young adult

(A) adult

Galileo

Books

Brighton, Catherine.

Galileo's Treasure Box.

New York: Walker and Company, 2001.

Introduces the reader to Galileo through the eyes of his daughter Virginia as she examines the tools in his study. (C)(YA)

Drake, Stillman.

Galileo: A Very Short Introduction.

New York: Oxford University Press, 2001.

Presents a short introduction to Galileo's life and achievements focusing on his conflicts with theologians but supporting the hypothesis that he was an advocate for the Catholic Church. (YA)(A)

Fisher, Leonardo.

Galileo.

New York: Simon & Schuster, 1992.

Explains Galileo's scientific contributions and discusses his support for the Copernican system. (C)

MacLachlan, James.

Galileo Galilei: First Physicist.

New York: Oxford University Press, 1997.

Contains a detailed chronology of Galileo's life and sidebars explaining his scientific contributions; appropriate for a high school audience. (YA)

Reston, James.

Galileo: A Life.

New York: HarperCollins Publishers, 1994.

Retells the story of Galileo's life, including his scientific contributions and his confrontation with the Catholic Church. (A)

Sis, Peter.

Starry Messenger: Galileo Galilei.

New York: Farrar, Straus & Giroux Books for Young Readers, 2000.

Weaves together pictures, maps, quotes from Galileo, and simple text to create a portrait of Galileo. (C)

Sobel, Dava.

Galileo's Daughter: A Historical Memoir of Science, Faith, and Love.

New York: Walker and Company, 1999.

Presents a human picture of Galileo the scientist and Galileo the father as portrayed in the letters written by his daughter. (A)

White, Michael.

Galileo Galilei: Inventor, Astronomer, and Rebel.

Woodbridge, CT: Blackbirch Press, 1999.

Covers the life and accomplishments of Galileo, including an examination of the conflict between the scientists of the time and the Catholic Church. (YA)

Videos

Galileo's Battle for the Heavens.

WGBH Boston Video, 2002.

Examines Galileo's astronomical discoveries, shares correspondence with his daughter, and chronicles his clash with the Catholic Church. (YA)(A)

Galileo: On the Shoulders of Giants.

Steeplechase Entertainment, 1999.

Introduces children to Galileo's discoveries, his conflict with the Catholic Church, and his mentorship of Cosimo de Medici II, Grand Duke of Tuscany. (C)(YA)

Web Sites

Galileo's Battle for the Heavens

www.pbs.org/nova/galileo/

Learn about Galileo's life, his place in the world of science, his experiments, and his mistaken belief that the Earth's daily rotation and its annual orbit around the Sun trigger ocean tides. (C)(YA)(A)

Galileo Galilei

galileo.imss.firenze.it/museo/b/egalilg.html

Short biography of Galileo with links to information about his inventions and discoveries. Find a virtual tour of his artifacts at: galileo.imss.firenze.it/museo/4/index.html (YA)(A)

The Galileo Project of Rice University

es.rice.edu/ES/humsoc/Galileo/

Contains an illustrated biography of Galileo, translations of the letters from his daughter, information about other scientists of his time, a portrait gallery, and links to other resources. (YA)(A)

Thursday's Classroom

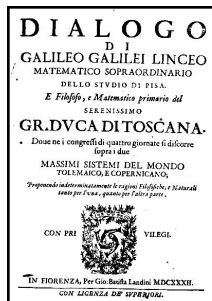
www.thursdaysclassroom.com/index_08feb01.html

Includes fun facts about Galileo, a Galileo astronomy tour, links, and activities. (C)(YA)

Galilei, Galileo.

Dialogue on the Two Chief World Systems: Ptolemaic and Copernican Religious authorities had been uncomfortable with some of Galileo's earlier publications, but it was this one that pushed them over the edge. In 1632, Galileo presented his defense of the Copernican, heliocentric system as a discussion among three friends, including a foolish character who seemed to represent the Pope. Upon publication, the church summoned Galileo to Rome to appear before the Roman Inquisition.

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C children

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Before and After Galileo: Selected Scientists

Books

Berlinski, David.

Newton's Gift: How Sir Isaac Newton Unlocked the System of the World. New York: Simon and Schuster, 2000.

Chronicles the work that led to Newton's fame. A

Bodanis, David.

E=mc²: A Biography of the World's Most Famous Equation. New York: Berkeley Publishing, 2000.

Profiles Einstein and explains his most famous equation. A

Bragg, Melvyn.

On Giants' Shoulders: Great Scientists and Their Discoveries from Archimedes to DNA.

New York: John Wiley & Sons, 1998.

Provides short biographies of important scientific discoveries and the scientists who made them, including Galileo, Newton, and Einstein. A

Coles, Peter.

Einstein and the Birth of Big Science. Cambridge, England: Icon Books, 2000.

Simplifies Einstein's scientific ideas. YA

Gingrich, Owen.

The Great Copernicus Chase. Cambridge, MA: Sky Publishing, 1992.

Provides a series of articles covering developments in astronomy, including the origin of the zodiac, fake astrolabes and the development of modern astronomy in the United States. A

Hammontree, Marie.

Albert Einstein: Young Thinker. New York: Simon and Schuster, 1961.

Tells about Einstein's childhood. C YA

Henry, John.

Moving Heaven and Earth: Copernicus and the Solar System. Cambridge, England: Icon Books, 2001.

Covers the high points of the Copernican Revolution. YA A

Severance, John.

Einstein: Visionary Scientist. New York: Clarion, 1999.

Provides a biographical account of Einstein's life including his childhood, career, and fame. YA

Videos

A. Einstein: How I See the World. PBS Home Video, 1991.

Excerpts from Einstein's diaries, personal letters, and writings to show how he became an advocate for peace. YA A

Einstein Revealed.

WGBH Boston Video, 1996.

Chronicles Einstein's life and scientific achievements from his birth in 1879 to his death in 1955. YA A

16th and 17th Century Italy

Books

Dooley, Brendan.

The Social History of Skepticism: Experience and Doubt in Early Modern Culture.

Baltimore, MD: Johns Hopkins University Press, 1999.

Traces the growth of skepticism in 17th century Europe, a movement of which Galileo was a part. A

Peters, Edward.

Inquisition. Berkeley, CA: University of California Press, 1988.

Documents the history of the Inquisition, from Roman legal procedure to the enforcement body of the Roman Church, particularly as it functioned in 16th to 19th century Mediterranean Europe. A

Rabb, Theodore K.

Renaissance Lives: Portraits of an Age. New York: Basic Books, 2000.

Portrays the lives of 15 men and women who lived during the Renaissance in Europe, including Galileo. YA A

Galilei, Galileo. History and Demonstrations Concerning Sunspots and Their Phenomena

One of the first astronomers to see sunspots, Galileo observed that they moved along the surface of the Sun, evidence that the Sun rotated. Galileo entered into a debate with a Jesuit professor over the question of whether the Sun was stationary and in 1613 published his argument in this book.

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IN GALILEO'S WORDS

Astronomy

Books

Becklake, Sue, Sebastian Quigley, and Mel Pickering.

All About Space: The Universe, Our Solar System, and Space Travel.
New York: Scholastic, 1998.

Presents general information about space for a young audience. (C)

Brashear, Ronald.

Star Struck: One Thousand Years of the Art and Science of Astronomy.
Seattle, WA: University of Washington Press, 2001.

Provides an in-depth history of astronomy with text, photographs, illustrations, and excerpts from old books. (YA) (A)

Dickinson, Terence.

Night Watch: A Practical Guide to Viewing the Universe.

Buffalo, NY: Firefly Books, 1998.

Relates information for the backyard astronomer, such as a guide to star brightness, constellation maps, sky charts, and tips on buying equipment. (A)

Kerrod, Robin.

The Sky at Night: Your Guide to the Heavens.

Hauppauge, NY: Barron's Educational Series, 2000.

Provides interactive guide including planisphere, flashlight, star maps, and star guide. (YA) (A)

National Audubon Society.

Field Guide to the Night Sky.

New York: Alfred A. Knopf, 1991.

Helps the amateur astronomer identify stars, constellations, and planets. (YA) (A)

Redfern, Martin.

The Kingfisher Young People's Book of Space.

New York: Kingfisher, 1998.

Introduces children to space with pictures of planets and stars, information about space exploration, and topics such as the big bang and life in the universe. (C) (YA)

Periodicals

Astronomy.

Waukesha, WI: Kalmbach Publishing.

Includes articles on recent developments in the field of astronomy. (YA) (A)

Odyssey: Adventures in Science.

Peterborough, NH: Cobblestone Publishing.

Presents science features for children.

Find it online at:

www.odysseymagazine.com/ (C) (YA)

Sky & Telescope.

Cambridge, MA: Sky Publishing.

Brings the amateur astronomer news on recent astronomical discoveries, sky charts, and other information. (A)

Videos

Have Telescope, Will Travel.

Films West, 1998.

Explores the solar system, the Milky Way, and the larger universe. (YA) (A)

Meet the Planets.

Standard Deviants TV, 2001.

Provides an overview of the solar system. (C) (YA)

Web Sites

Astro for Kids

www.astronomy.com/content/static/AstroForKids/default.asp

Kids can click through information about the solar system. (C)

Educational Activities

www.astrosociety.org/education/activities/activities.html

Provides a sampling of classroom activities, some of which can be adapted for home use. (YA) (A)

Youth in Astronomy.org

www.youthinastronomy.org/

Includes a student telescope network that allows youth to run a research telescope via the Internet. (YA)

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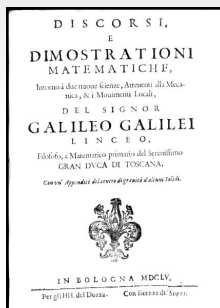
(A) adult

Galilei, Galileo. Discourses and Mathematical Demonstrations Concerning Two New Sciences

While under house arrest, Galileo returned to a safer topic, the study of motion that he had begun at least 25 years earlier.

In 1638, he published this work, using mathematics to describe how nature behaved.

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IN GALILEO'S WORDS

NOVA®

"Galileo's Battle for the Heavens" is a production by Green Umbrella, Ltd., for WGBH/Boston in association with Channel 4.



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Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

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Ⓐ adult

Careers

Books

Chang, Laura, Ed.

The New York Times Scientists at Work: Profiles of Today's Groundbreaking Scientists from Science Times.

New York: McGraw-Hill, 2000.

Compiles pieces from the New York Times' Scientists at Work column to profile 50 prominent scientists of today in fields such as particle physics, paleontology, mathematics, and medicine. (YA) (A)

Goldberg, Jan.

On the Job Series: Real People Working in Science.

Chicago, IL: NTC/Contemporary Publishing Group, 1998.

Includes a section on careers in the physical sciences with information on training, job outlook, salaries, and interviews with professionals in the field. (YA) (A)

Karnes, Frances A. and Kristen R. Stephens.

Young Women of Achievement: A Resource for Girls in Science, Math, and Technology.

Amherst, NY: Prometheus Books, 2002

Introduces career opportunities available in the sciences and provides specific strategies for planning for a future career in these areas. (YA) (A)

Yount, Lisa.

A to Z of Women in Science and Math.

New York: Facts on File, 1999.

Profiles more than 150 women throughout history and throughout the world who have contributed to science and mathematics. (YA) (A)

Web Sites

American Institute of Physics

www.aip.org/industry.html

Provides career services, employment statistics, physics success stories, and links to a physics trade journal and corporate associates. (YA) (A)

Ask the Space Scientist

image.gsfc.nasa.gov/poetry/ask/acareers.html

Provides a lot of frequently asked questions regarding astronomy careers. (YA) (A)

Astronomy Internship at the Maria Mitchell Observatory on Nantucket

www.mmo.org/

Provides information about how college students can apply for an internship at the observatory. (YA)

Careers

spacelink.nasa.gov/Instructional

Materials/Curriculum.Support/Careers/

Provides links to information on careers in astronomy.

Careers in Astronomy

www.schoolobservatory.org.uk/astro/career/

Tells about what astronomers do and what needs to be done to become an astronomer. (YA) (A)

Careers Using Physics

www.spsnational.org/cup/home.html

Illustrates how people use physics in their jobs. Profiles various people who use physics in their job and includes descriptions of their educational background, job sector (such as industry, academia, and government), and job duties. (YA) (A)

Contributions of 20th Century Women to Physics

www.physics.ucla.edu/%7Eecwp/

Profiles women physicists of the last century. (YA) (A)

Curious about Astronomy?

curious.astro.cornell.edu/careers.php

Allows visitors to submit a question to a team of graduate students studying astronomy, or to find out more about the field by reading answers to past questions. (YA) (A)

The Faces of Science:

African Americans in the Sciences

www.princeton.edu/~mcbrown/display/faces.html

Profiles past and present African American scientists in a number of disciplines, including physics and mathematics; lists science Ph.D.s awarded to U.S. African Americans from 1870–1999; and provides bibliographies for research on African Americans in science and technology. (YA) (A)

Jobs in Physics, Astronomy, and Other Fields

www.phys-astro.sonoma.edu/people/faculty/tenn/jobs.html

Provides career planning aids and links to employment in related fields. (YA) (A)