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Science: Inventions, Ideas, and Scientists that Shaped the World

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The House of Wisdom How Arabic Science Saved Ancient Knowledge and Gave Us the Renaissance by Jim Al-Khalili

Read by Lou Harpenau

12 hours, 9 minutes

British Iraqi physicist explores the history of science in Arabic lands, particularly during Europe's Dark Ages. Details discoveries in algebra, philosophy, medicine, and physics and their socio-political impact. Profiles include Ibn Zakariyya al-Razi, considered the father of psychotherapy, and Ibn al-Haytham, who advanced the scientific method. 2010.

[Download from BARD: The House of Wisdom How Arabic Science...](#)

Also available on digital cartridge DB075023

Mr. Lincoln's High-Tech War: How the North Used the Telegraph, Railroads, Surveillance Balloons, Ironclads, High-Powered Weapons, and More to Win the Civil War by Thomas B. Allen

Read by Don Hagen

5 hours, 4 minutes

Discusses President Lincoln's role as commander in chief during the Civil War. Describes his advocacy of controlling railroad and telegraph lines, conducting aerial surveillance, producing advanced weaponry, building ironclad ships, and blockading the South's ports. For grades 6-9. 2009.

[Download from BARD: MR. Lincoln's High-Tech War: How the North...](#)

Also available on digital cartridge DB068278

The Horse, the Wheel, and Language How Bronze-Age Riders from the Eurasian Steppes Shaped the Modern World by David W. Anthony

Read by Ken Kliban

28 hours, 20 minutes

Archaeologist argues that the puzzle of who, where, and when surrounding Proto-Indo-European language origins has been solved. Asserts that linguistic and archaeological clues identify a location--the Eurasian steppes--and that evidence of domesticated horses and wheeled wagons explains early expansion of traditions, commerce, and language. 2007.

[Download from BARD: The Horse, the Wheel, and Language How...](#)

Also available on digital cartridge DB067273

Beyond Human Living with Robots and Cyborgs by Gregory Benford

Read by Kristin Allison

8 hours, 37 minutes

Benford, a physicist and Nebula Award-winning novelist, and Malartre, a noted biologist and environmentalist, examine technological developments in the fields of artificial intelligence and human modification. They speculate on future roles of robots at home, in the workplace, and in battle, and discuss social and cultural implications of bionics. 2007.

[Download from BARD: Beyond Human Living with Robots and Cyborgs](#)

Also available on digital cartridge DB067498

Tubes a Journey to the Center of the Internet by Andrew Blum

Read by Bill Hensel

8 hours, 58 minutes

Wired correspondent explores the infrastructure that makes the Internet possible. Destinations include Milwaukee, where a map of the Internet is created and printed; Ashburn, Virginia, which houses data centers; and a Portuguese beach, where a cable connects Europe to African lands. 2012.

[Download from BARD: Tubes a Journey to the Center of the Internet](#)

Also available on digital cartridge DB077283

The Science of Leonardo Inside the Mind of the Great Genius of the Renaissance by Fritjof Capra

Read by Gary Tipton

10 hours, 42 minutes

A modern scientist evaluates Leonardo's fifteenth-century notebooks in this biographical study that focuses on the artist's use of the scientific method and his wide-ranging achievements. Discusses Leonardo's systematic investigation of natural phenomena and his integrated worldview--futuristic in his day--that is still relevant to twenty-first-century inquiring minds. 2007.

[Download from BARD: The Science of Leonardo Inside the Mind of the...](#)

Also available on digital cartridge DB067336

Computing a Concise History by Paul E. Ceruzzi

Read by Mark Delgado

4 hours, 25 minutes

Smithsonian Institution curator details the invention and development of computing, from punch cards to smartphones. Focuses on four themes: the coding of information in binary form, the convergence of different technologies, advances in solid-state electronics, and the interaction between people and machines. 2012.

[Download from BARD: Computing a Concise History](#)

Also available on digital cartridge DB075267

[Download from BARD as Electronic Braille BR19587](#)

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The God Machine from Boomerangs to Black Hawks, the Story of the Helicopter by James R. Chiles

Read by Jakes Williams

15 hours, 32 minutes

The author, whose research included helicopter lessons, provides a detailed history of the rotary-driven flying machine--before and after its first true flight in the early 1920s. He muses that although the helicopter never replaced cars as some predicted, it did transform military combat, rescue missions, and television news. 2007.

[Download from BARD: The God Machine from Boomerangs to Black...](#)

Also available on digital cartridge DB067727

The Great Equations: Breakthroughs in Science from Pythagoras to Heisenberg by Robert P. Crease

Read by Lou Harpenau

10 hours 15 minutes

Philosopher examines ten mathematical formulas that have influenced civilization. Discusses the Pythagorean theorem, Newton's second law of motion, Einstein's relativity theories, Schrödinger's quantum equation, and Heisenberg's uncertainty principle. Profiles the scientists behind the discoveries and reflects on ways they changed human understanding and experience of the world. 2008.

[Download from BARD: The Great Equations Breakthroughs in Science...](#)

Also available on digital cartridge DB070335

The Clockwork Universe Isaac Newton, the Royal Society, and the Birth of the Modern World by Edward Dolnick

Read by Kerry Dukin

11 hours, 38 minutes

Author examines science during the mid-seventeenth century and the group of individuals who created the Royal Society. Discusses Newton's theory of gravity, the debate over whether Newton or Leibniz invented calculus first, and other pivotal moments. Explores the importance of religion to scientific thinkers of that era. 2011.

[Download from BARD: The Clockwork Universe Isaac Newton, the...](#)

Also available on digital cartridge DB074352

They Made America from the Steam Engine to the Search Engine: Two Centuries of Innovators by Harold Evans

Read by Barry Bernson

39 hours, 41 minutes

The author of *The American Century* (RC 47580) profiles seventy American innovators who turned their ideas into commercial realities that benefited the public. Includes such well-known figures as Eli Whitney and Thomas Edison as well as individuals like Ida Rosenthal, who invented the Maidenform bra. 2004.

[Download from BARD: They Made America from the Steam Engine to...](#)

Also available on digital cartridge DB060342

Ingenious a True Story of Invention, Automotive Daring, and the Race to Revive America by Jason Fagone

Read by Gregory Gorton

11 hours, 44 minutes

Science journalist followed four teams from 2010 to 2013 as they competed for the \$10 million award offered by the Automotive X Prize foundation for development of a one-hundred-mile-per-gallon car. 2013.

[Download from BARD: Ingenious a True Story of Invention, Automotive...](#)

Also available on digital cartridge DB077846

They All Laughed--: from Light Bulbs to Lasers, the Fascinating Stories Behind the Great Inventions that Have Changed Our Lives by Ira Flatow

Read by Phil Regensdorf

8 hours, 30 minutes

The science talk show host for National Public Radio explores behind-the-scene stories about twenty-four inventions and the people responsible for them. Flatow combines historical facts with details about individuals who made accidental discoveries and those who developed ideas born of necessity.

[Download from BARD: They All Laughed--: from Light Bulbs to Lasers...](#)

Also available on digital cartridge DB036905

The Tyranny of E-mail the Four-Thousand-Year Journey to Your Inbox by John Freeman

Read by Guy Williams

8 hours, 20 minutes

Literary critic examines the addiction and distraction of e-mail. Traces the four-thousand-year history of written communication from clay cuneiform tablets to handwritten, hand-delivered letters. Provides tips to reduce the time spent writing, checking, reading, and sending e-mail. 2009.

[Download from BARD: The Tyranny of E-mail the Four-Thousand-Year...](#)

Also available on digital cartridge DB071433

Before Galileo the Birth of Modern Science in Medieval Europe by John Freely

Read by Barry Bernson

11 hours, 22 minutes

Physicist and historian chronicles the development of science in Europe prior to the Scientific Revolution by thinkers Galileo, Copernicus, and Newton. Details the passing of knowledge from one individual to another and the influence of the Greeks and Arabs. Discusses the revival of the study of astronomy. 2012.

[Download from BARD: Before Galileo the Birth of Modern Science in...](#)

Also available on digital cartridge DB075475

Cathedral, Forge, and Waterwheel: Technology and Invention in the Middle Ages by Frances & Joseph Gies

Read by Kerry Dukin

10 hours, 36 minutes

The Gieses debunk long-held myths about stagnation during the Middle Ages (roughly A.D. 500 to A.D. 1500) as they explore developments in areas such as textiles, shipbuilding, and printing. They conclude that Europe did not suddenly leap forward technologically during the Renaissance, and that many inventions resulted from scientific advances borrowed from other countries.

[Download from BARD: Cathedral, Forge, and Waterwheel: Technology...](#)

Also available on digital cartridge DB038124

Railroads and the American People by H. Roger Grant

Read by Alec Volz

15 hours, 18 minutes

History professor explores the development of railroads and their impact on American culture. Focuses on four key areas: trains, stations, communities, and legacy. Includes analyses of line closings, wrecks, and corruption relating to the railroad business. 2012.

[Download from BARD: Railroads and the American People](#)

Also available on digital cartridge DB075827

[Download from BARD as Electronic Braille BR19774](#)

Also available in braille BR019774

Black Pioneers of Science and Invention by Louis Haber

Read by Harold Parker

5 hours, 40 minutes

Biographical sketches of fourteen important but little-known African-American inventors and scientists. Included are Garrett A. Morgan, who invented the first traffic-light signal system; Percy Lavon Julian, who developed synthetic cortisone; and Charles Drew, who discovered how to preserve and transfuse blood plasma. For grades 6-9 and older readers.

[Download from BARD: Black Pioneers of Science and Invention](#)

Also available on digital cartridge DB035215

Also available in braille BR001678

Fifty Inventions that Shaped the Modern Economy by Tim Harford

Read by Roger Davis

9 hours, 18 minutes

Economist and journalist presents fifty inventions--both tangible and intangible--which have impacted the development of the world's economies. Topics include "Winners and Losers," "Reinventing How We Live," "Inventing New Systems," "Ideas about Ideas," "Where Do Inventions Come From?," "The Visible Hand," and "Inventing the Wheel." Commercial audiobook. 2017.

[Download from BARD: Fifty Inventions that Shaped the Modern Economy](#)

Also available on digital cartridge DB089127

The Age of Wonder How the Romantic Generation Discovered the Beauty and Terror of Science by Richard Holmes

Read by Jake Williams

26 hours, 24 minutes

History of the second scientific revolution in Great Britain at the end of the eighteenth century. Surveys individuals whose discoveries and inventions contributed to the movement, including astronomer William Herschel and his sister Caroline, chemist Humphry Davy, and botanist Joseph Banks. Some strong language. Nat'l Book Critics Circle Prize. 2008.

[Download from BARD: The Age of Wonder How the Romantic...](#)

Also available on digital cartridge DB072354

Engines of Change a History of the American Dream in Fifteen Cars by Paul Ingrassia

Read by Ray Childs

14 hours, 45 minutes

Pulitzer Prize winner and author of Crash Course (DB 71814) analyzes fifteen iconic cars and their impact on American society and history. Profiles Henry Ford, Ferdinand Porsche, Heinz Nordoff, Soichiro Honda, and other industrialists. Also details the development of the Ford Model T, Volkswagen Beetle, and Honda Accord. 2012.

[Download from BARD: Engines of Change a History of the American...](#)

Also available on digital cartridge DB076148

The Ten Most Beautiful Experiments by George Johnson

Read by Butch Hoover

4 hours, 36 minutes

Award-winning science writer recounts landmark historic experiments whose simplicity he finds beautiful. Explores discoveries made by Galileo on the laws of motion, William Harvey on blood circulation, Isaac Newton on the color spectrum, Michael Faraday on electromagnetism, and Ivan Pavlov on conditioned responses. 2008.

[Download from BARD: The Ten Most Beautiful Experiments](#)

Also available on digital cartridge DB067102

How We Got to Now: Six Innovations that Made the Modern World by Steven Johnson

Read by George Newbern

6 hours, 13 minutes

Author of The Invention of Air (DB 70847) and Where Good Ideas Come From (DB 72839) surveys the history of science and presents six technical and scientific innovations that changed the world but are currently taken for granted. Companion to 2014 PBS television series. Commercial audiobook. Bestseller. 2014.

[Download from BARD: How We Got to Now: Six Innovations that Made...](#)

Also available on digital cartridge DB080109

The Invention of Air a Story of Science, Faith, Revolution, and the Birth of America by Steven Johnson

Read by Jon Huffman

8 hours, 10 minutes

Biography of British chemist and ordained minister Joseph Priestley (1733-1804) discusses his contributions to natural philosophy, science, religion, and politics. Describes Priestley's relationships with Benjamin Franklin, John Adams, Thomas Jefferson, and other Americans and highlights his discovery of oxygen. 2008.

[Download from BARD: The Invention of Air a Story of Science, Faith...](#)

Also available on digital cartridge DB070847

[Download from BARD as Electronic Braille BR18814](#)

Also available in braille BR018814

Where Good Ideas Come From the Natural History of Innovation by Steven Johnson

Read by Alec Volz

11 hours, 3 minutes

The author of *The Invention of Air* (DB 70847) analyzes the social and environmental conditions that spark great ideas. Identifies seven recurring patterns--such as the slow-building hunch and the fortunate error--that lead to discoveries and presents examples from business and science, including Google News and the DNA double-helix structure. 2010.

[Download from BARD: Where Good Ideas Come From the Natural...](#)

Also available on digital cartridge DB072839

The Amazing Story of Quantum Mechanics: A Math-Free Exploration of the Science that Made Our World by James Kakalios

Read by Lou Harpenau

10 hours, 18 minutes

Physicist offers a "working-man's view" of quantum mechanics, connecting groundbreaking discoveries in the field with many of the tools and conveniences of today's world, including DVDs, MRI machines, and high-speed computers. Also explains why some staples of twentieth-century science fiction, such as jet packs, have not become reality. 2010.

[Download from BARD: The Amazing Story of Quantum Mechanics...](#)

Also available on digital cartridge DB072643

Mr. Gatling's Terrible Marvel the Gun that Changed Everything and the Misunderstood Genius Who Invented It by Julia Keller

Read by Michael Scherer

9 hours, 57 minutes

Traces the development of the first operational machine gun and provides a portrait of its inventor, Richard Jordan Gatling (1818-1903). Discusses the economic, psychological, and social consequences of Gatling's weapons business in the late-nineteenth-century United States. 2008.

[Download from BARD: Mr. Gatlin's Terrible Marvel the Gun that...](#)

Also available on digital cartridge DB068501

Appetite for Self-Destruction the Spectacular Crash of the Record Industry in the Digital Age by Steve Knopper

Read by Dan John Miller

11 hours

Music journalist's take on the music industry's thirty-year-long digital revolution. Highlights the innovations of CDs in the 1980s, the era of Internet file sharing, and the subsequent invention of MP3 players and iTunes. Discusses nefarious business dealings of record companies and ways artists have used the technology. Strong language and some descriptions of sex. Commercial audiobook. 2009.

[Download from BARD: Appetite for Self-Destruction the Spectacular...](#)

Also available on digital cartridge DB069034

Life Ascending the Ten Great Inventions of Evolution by Nick Lane

Read by Butch Hoover

15 hours, 3 minutes

Biochemist discusses the greatest evolutionary developments, including the beginnings of life, DNA, photosynthesis, complex cells, sex, movement, sight, hot blood, consciousness, and death. Provides insight on the origins of each milestone and the science behind it. 2009.

[Download from BARD: Life Ascending the Ten great Inventions of...](#)

Also available on digital cartridge DB070674

The Mold in Dr. Florey's Coat the Story of the Penicillin Miracle By Eric Lax

Read by Mary Kane

11 hours, 18 minutes

Describes how in 1940 Oxford scientists Howard Florey, Ernst Chain, and Norman Heatley developed an antibiotic wonder drug from the mold discovered by Alexander Fleming twelve years earlier. Explains penicillin's lifesaving impact on treating infections, especially of World War II soldiers. Covers the controversy surrounding the 1945 Nobel Prize. 2004.

[Download from BARD: The Mold in Dr. Florey's Coat the Story of the...](#)

Also available on digital cartridge DB063092

The Quantum Frontier the Large Hadron Collider by Don Lincoln

Read by Ray Childs

10 hours, 9 minutes

Scientist discusses the world's largest and highest-energy particle accelerator, the Large Hadron Collider, or LHC, located underground in CERN's laboratory outside Geneva, Switzerland. Provides information about the science of the LHC and covers its purpose. Also details the mechanics of the accelerator and particle detectors. 2009.

[Download from BARD: The Quantum Frontier the Large Hadron Collider](#)

Also available on digital cartridge DB070551

A History of the World in 100 Objects by Neil MacGregor

Read by Barry Bernson

19 hours, 53 minutes

British Museum director profiles one hundred pieces from the institution's collection that trace human history, from a stone chopping tool discovered in Tanzania in 1931--and estimated to be one of the first manmade objects--to a solar-powered lamp and charger manufactured in China in 2010. Bestseller. 2010.

[Download from BARD: A History of the World in 100 Objects](#)

Also available on digital cartridge DB073997

Chasing Icarus the Seventeen Days in 1910 that Forever Changed American Aviation by Gavin Mortimer

Read by Butch Hoover

12 hours 33 minutes

Discusses three pivotal aviation events that occurred in 1910: the failed attempt to cross the Atlantic in the dirigible America; the International Balloon Cup Race in St. Louis, Missouri; and New York's international aircraft contest above Belmont Park racetrack. Includes noted aviators' accounts and examines public perception of aeronautics. 2009.

[Download from BARD: Chasing Icarus the Seventeen Days in 1910 that...](#)

Also available on digital cartridge DB073277

Ambitious Brew the Story of American Beer by Maureen Ogle

Read by Martha Harmon Pardee

13 hours, 34 minutes

Traces the history of beer brewing and consumption from the mid-1800s, when an influx of German immigrants energized the industry. Profiles beer entrepreneurs Frederick Pabst, Budweiser's Carl Conrad, and the Busch and Yuengling families. Examines the impact of Prohibition, World Wars I and II, and the rise of microbreweries. 2006.

[Download from BARD: Ambitious Brew the Story of American Beer](#)

Also available on digital cartridge DB063591

The Book in the Renaissance by Andrew Pettegree

Read by Mark Ashby

16 hours, 32 minutes

Chronicles the first one hundred fifty years of the printed word. Details the origins and evolution of print, culminating in Gutenberg's innovation and its momentous consequences for humankind. Examines the religious, economic, and cultural concerns that influenced the production of books. 2010.

[Download from BARD: The Book in the Renaissance](#)

Also available on digital cartridge DB074291

Quirky: the Remarkable Story of the Traits, Foibles, and Genius of Breakthrough Innovators Who Changed the World by Melissa A. Schilling

Read by Erin Bennett

10 hours, 4 minutes

An examination of personality traits that may make a person a "genius." Specifically highlights those in science and technology fields, including Marie Curie, Albert Einstein, Steve Jobs, Elon Musk, Thomas Edison, Dean Kamen, Benjamin Franklin, and Nikola Tesla. Commercial audiobook. 2018.

[Download from BARD: Quirky: the Remarkable Story of the Traits...](#)

Also available on digital cartridge DB090230

Sun in a Bottle the Strange History of Fusion and the Science of Wishful Thinking by Charles Seife

Read by Bill Weideman

9 hours, 10 minutes

Describes scientists' many attempts, since the first hydrogen bomb was detonated in 1952, to harness nuclear fusion. Discusses the various teams who have tried lasers, magnets, sound waves, particle beams, and metal to tap into the power of the sun. Commercial audiobook. 2008.

[Download from BARD: Sun in a Bottle the Strange History of Fusion...](#)

Also available on digital cartridge DB068406

The Victorian Internet: the Remarkable Story of the Telegraph and the Nineteenth Century's On-Line Pioneers by Tom Standage

Read by Randy Atcher

5 hours, 45 minutes

History of the invention of the telegraph, which was the technological marvel of its time. Describes how the machine changed the way the world operated, including its direct effects on warfare, espionage, and love affairs. Provides anecdotes about the inventors, hackers, and cheats.

[Download from BARD: The Victorian Internet: the Remarkable Story of...](#)

Also available on digital cartridge DB047958

The Inner History of Devices by Sherry Turkle

Read by Erin Jones

5 hours, 49 minutes

Thirteen essays in the form of memoirs, ethnographies, and clinical cases describe our use of technology and its impact on our lives and relationships. Includes the personal account of a woman with prosthetic eyes, who discusses her growing dependence on electronic devices and her changing self-image. 2008.

[Download from BARD: The Inner History of Devices](#)

Also available on digital cartridge DB069738

Mothers of Invention From the Bra to the Bomb: Forgotten Women & Their Unforgettable Ideas by Ethlie Ann Vare

Read by Carol McCartney

6 hours, 29 minutes

An introduction to a diverse group of creative women, from the inventor of the cocktail to the mathematician Maria Agnesi, who wrote the standard text on integral calculus in the eighteenth century. The authors give long overdue credit to women whose discoveries were ignored, such as graduate student Jocelyn Bell, who discovered the pulsar but whose professor got the Nobel Prize, or Catherine Littlefield Greene, whom Eli Whitney forgot to mention for her part in inventing the cotton gin.

[Download from BARD: Mothers of Invention From the Bra to the Bomb...](#)

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