

Nonfiction Science Booklist

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Historical and General Science

Angier, Natalie. The Canon : a whirligig tour of the beautiful basics of science. Presents a comprehensive guide to the study of physics, chemistry, biology, geology, and astronomy that covers a number of issues including stem cell research, global warming, and the bird flu epidemic. Shelf Number 500 ANG.

Diamond, Jared M. Guns, Germs, and Steel : the fates of human societies. Traces the development of primitive societies showing why some groups advanced more rapidly than others and how this progression explains why various populations stabilize at specific phases of development while others continue to evolve. Shelf Number 303.4 DIA.

Dickey, Colin. Cranioklepty: grave robbing and the search for genius. The after-death stories of Franz Joseph Haydn, Ludwig Beethoven, Swedenborg, Sir Thomas Browne and many others have never before been told in such detail and vividness. Cranioklepty takes us on an extraordinary history of a peculiar kind of obsession. The desire to own the skulls of the famous, for study, for sale, for public (and private) display, seems to be instinctual and irresistible in some people. Shelf Number 612.75 DIC.

Herken, Gregg. Brotherhood of the Bomb: the tangled lives and loyalties of Robert Oppenheimer, Ernest Lawrence, and Edward Teller. How did science, enlisted in the service of the state during the Second World War, become a slave to its patron during the Cold War-and scientists with it? The story of these three men, is fundamentally about loyalty-to the country, to science, and to each other-and about the wrenching choices that had to be made when these allegiances came into conflict. Shelf Number 539.7 HER.

Wearing, Judy. Edison's Concrete Piano: flying tanks, six nipples sheep, walk-on-water shoes and 12 other flops from great inventors. From Alexander Graham Bell's multi-nippled sheep to Leonardo da Vinci's walk-on-water shoes, these ludicrous ideas and faulty designs will leave you with a smile on your face, and the reminder that even the very best of us make mistakes. Shelf Number 609.22 WEA.

Hawking, Stephen. A Brief History of Time. Explores such profound questions as: How did the universe begin--and what made its start possible? Does time always flow forward? Is the universe unending--or are there boundaries? Are there other dimensions in space? What will happen when it all ends? Shelf Number 523.1 HAW.

Medicine and Psychology

Grandin, Ph.D., Temple. The Way I See It: a personal look at autism and Asperger's. Dr. Temple Grandin gets down to the REAL issues of autism, the ones parents, teachers, and individuals on the spectrum face every day. Shelf Number 616.858 GRA.

Ronson, Jon. The Psychopath Test: a journey through the madness industry. In this madcap journey, a bestselling journalist investigates psychopaths and the industry of doctors, scientists, and everyone else who studies them. Shelf Number 616.85 RON.

Jamison, Kay R. Night Falls Fast: understanding suicide. In the United States and across the world there has been a frightening surge in suicides committed by children, adolescents and young adults. It is the third major cause of death in 19- to 24-year-olds, and the second in college students. Dr. Kay Redfield Jamison, an internationally recognized authority on depressive illnesses and their treatment, knows this subject firsthand. Shelf Number 616.85 JAM.

Beck, Aaron T. Prisoners of Hate: the cognitive basis of anger, hostility, and violence. Applies lessons learned from case studies to the problem of anger and violence, concluding that domestic violence, war, and genocide, result from a pattern of dysfunctional thinking. Shelf Number 616.8582 BEC.

Silberman, Steve. Neurotribes: the legacy of autism and the future of neurodiversity. A book that upends conventional thinking about autism and suggests a model for acceptance, understanding, and full participation in society for people who think differently. Shelf Number 616.85 SIL.

Agus, David B. The End of Illness. Do we have to suffer from debilitating conditions and sickness? Is it possible to add more vibrant years to our lives? Dr. Agus tackles these fundamental questions and dismantles misperceptions about what "health" really means. Shelf Number 613 AGU.

Ashcroft, Frances. The Spark of Life: electricity in the human body. What happens during a heart attack? Can someone really die of fright? What is death, anyway? How does electroshock treatment affect the brain? What is consciousness? The answers to these questions lie in the electrical signals constantly traveling through our bodies, driving our thoughts, our movements, and even the beating of our hearts. Shelf Number 612.014 ASH.

Carr, Nicholas. The Shallow: what the internet is doing to our brains. "Is Google making us stupid?" When Nicholas Carr posed that question he tapped into a well of anxiety about how the Internet is changing us. He also crystallized one of the most important debates of our time: As we enjoy the Net's bounties, are we sacrificing our ability to read and think deeply? Shelf Number 612.8 CAR.

Jensen, Frances E. The Teenage Brain: a neuroscientist's survival guide to raising adolescents and young adults. Driven by the assumption that brain growth was pretty much complete by the time a child began kindergarten, scientists believed for years that the adolescent brain was essentially an adult one—only with fewer miles on it. Over the last decade, however, the scientific community has learned that the teen years encompass vitally important stages of brain development. Shelf Number 612.6 JEN.

Foer, Joshua. Moonwalking with Einstein: the art and science of remembering everything. From the United States Memory Championship to deep within the author's own mind, this is an electrifying work of journalism that reminds us that, in every way that matters, we are the sum of our memories. Shelf Number 153.14 FOE.

Dittrich, Luke. Patient H.M. : a story of memory, madness, and family secrets. In the summer of 1953 maverick neurosurgeon William Scoville performed a groundbreaking brain operation on a 27 year old

patient named Henry Molaison. The story of Patient H.M., as he came to be known, is the story of how we came to understand memory, and better understand ourselves. Shelf Number 616.85 DIT.

Johnson, Steven. The Ghost Map: the story of London's most terrifying epidemic--and how it changed science, cities, and the modern world. Chronicles the outbreak and spread of Cholera in London during the summer of 1854 and the efforts of Reverend Henry Whitehead and Dr. John Snow who isolated the disease and put an end to the epidemic. Shelf Number 614.514 JOH.

Kean, Sam. The disappearing spoon: and other true tales of madness, love, and the history of the world from the periodic table of the elements. The Periodic Table is a crowning scientific achievement, but it's also a treasure trove of adventure, betrayal, and obsession. These fascinating tales follow every element on the table as they play out their parts in human history, and in the lives of the (frequently) mad scientists who discovered them. Shelf Number 546 KEA.

Kean, Sam. The violinist's thumb : and other lost tales of love, war, and genius, as written by our genetic code. There are genes to explain crazy cat ladies, why other people have no fingerprints, and why some people survive nuclear bombs. hey prove that Neanderthals and humans bred thousands of years more recently than any of us would feel comfortable thinking. They can even allow some people, because of the exceptional flexibility of their thumbs and fingers, to become truly singular violinists. Shelf Number 572.8 KEA.

Schwarz, Alan. ADHD nation : children, doctors, big pharma, and the making of an American epidemic. The groundbreaking and definitive account of the widespread misdiagnosis of attention deficit hyperactivity disorder--and how its unchecked growth over half a century has made ADHD one of the most controversial conditions in medicine, with serious effects on children, adults, and society. Shelf Number 618.92 SCH.

Shilts, Randy. And the Band Played On: politics, people, and the AIDS epidemic. An investigative account of the medical, sexual, and scientific questions surrounding the spread of AIDS across the country. Shelf Number 616.9792 SHI.

Skloot, Rebecca. The Immortal Life of Henrietta Lacks. Examines the experiences of the children and husband of Henrietta Lacks, who, twenty years after her death from cervical cancer in 1951, learned doctors and researchers took cells from her cervix without consent which were used to create the immortal cell line known as the HeLa cell; provides an overview of Henrietta's life; and explores issues of experimentation on African-Americans and bioethics. Shelf Number 616.027 SKL.

Starr, Douglas P. Blood: an epic history of medicine and commerce. Studies how the theories that surround human blood have changed and developed throughout history, and discusses how blood has been used in medicine, the development of transfusions, the creation of fake blood, and other related topics. Shelf Number 362.1784 STA.

Washington, Harriet A. Medical Apartheid : the dark history of medical experimentation on Black Americans from colonial times to the present. Presents a comprehensive history of medical experimentation on African-Americans from colonial times to the present; describing unauthorized medical treatments and autopsies as well as mistreatment under the guise of medical research. Shelf Number 174.28 WAS.

Mukherjee, Siddhartha. The Emperor of All Maladies: a biography of cancer. The story of cancer is a story of human ingenuity, resilience, and perseverance, but also of hubris, paternalism, and misperception. Shelf Number 616.99 MUK.

Thompson, Clive. Smarter Than You Think: how technology is changing our minds for the better. A revelatory and timely look at how technology boosts our cognitive abilities—making us smarter, more productive, and more creative than ever. Shelf Number 303.48 THO.

Nasar, Sylvia. A Beautiful Mind: the life of mathematical genius and Nobel Laureate John Nash. In a masterful blend of biography and science writing, Nasar traces John Forbes Nash, Jr.'s rise to the heights of intellectual achievement and his harrowing descent from eccentricity to insanity. Shelf Number B Nash (Biography).

Aptowicz, Cristin. Dr. Mutter's Marvels: a true tale of intrigue and innovation at the dawn of modern medicine. The mesmerizing, first-ever biography of the brilliant and eccentric physician and innovator who revolutionized surgery and founded America's finest museum of medical oddities. Shelf Number B Nash (Biography).

Environmental Studies

Weisman, Alan. The World Without Us. If human beings disappeared instantaneously from the Earth, what would happen? What creatures would emerge from the dark and swarm? How would our treasured structures--our tunnels, our bridges, our homes, our monuments--survive the unmitigated impact of a planet without our intervention? Shelf Number 304.2 WEI.

Friedman, Thomas L. Hot, Flat and Crowded: why we need a green revolution-and how it can renew America. Friedman explains how global warming, rapidly growing populations, and the expansion of the world's middle class through globalization have produced a dangerously unstable planet. Shelf Number 363.7 FRI.

Lynas, Mark. Six Degrees: our future on a hotter planet. Based on authoritative scientific articles, the latest computer models, and information about past warm events in Earth history, *Six Degrees* promises to be an eye-opening warning that humanity will ignore at its peril. Shelf Number 551.6 LYN.

Royte, Elizabeth. Garbage Land: on the secret trail of trash. A wild adventure begins once our trash hits the bottom of the can. Shelf Number 363.72 ROY.

Grossman, Elizabeth. High Tech Trash: digital devices, hidden toxics, and human health. Deep in every electronic device lie toxic materials that make up the bits and bytes, a complex thicket of lead, mercury, cadmium, plastics, and a host of other often harmful ingredients. Shelf Number 363.7287 GRO.

Animals and Nature

Darwin, Charles. On the Origin of the Species. The classic that exploded into public controversy, revolutionized the course of science, and continues to transform our views of the world. Shelf Number 576.82 DAR.

Grice, Gordon. Deadly Kingdom: the book of dangerous animals. Categorized by kind and informed throughout by the author's unsentimental view of the natural order and our place in it, here are the hard-to-stomach, hard-to-resist facts and legends of animal encounters. Shelf Number 591.65 GRI.

Wilcove, David S. No Way Home: the decline of the world's great animal migrations. Scientific discoveries and advanced technologies are helping us to understand migrations better, but alone, they won't stop sea turtles and songbirds from going the way of the bison or passenger pigeon. What's required is the commitment and cooperation of the far-flung countries migrants cross—long before extinction is a threat. Shelf Number 591.568 WIL.

Forbes, Peter. The Gecko's Foot: bio-inspiration-engineering new materials from nature. In this book we discover that the spiny fruits of the cocklebur inspired the hook-and-loop fastener known as Velcro; unfolding leaves, insect wings, and space solar panels share similar origami folding patterns; the self-cleaning leaves of the sacred lotus plant have spawned a new industry of self-cleaning surfaces; and cantilever bridges have much in common with bison spines. Shelf Number 600 FOR.

Sandlin, Lee. Storm Kings: the untold history of America's first tornado chasers. Explores America's fascination with and unique relationship to tornadoes. Shelf Number 551.553 SAN.

Winchester, Simon. Krakatoa: the day the world exploded August 27, 1883. The legendary annihilation in 1883 of the volcano-island of Krakatoa, which was followed by an immense tsunami that killed nearly forty thousand people. Shelf Number 551.21 WIN.

Dawkins, Richard. The Blind Watchmaker: why the evidence of evolution reveals a universe without design. Natural selection—the unconscious, automatic, blind, yet essentially nonrandom process Darwin discovered—has no purpose in mind. If it can be said to play the role of a watchmaker in nature, it is the *blind* watchmaker in nature. Shelf Number 576.82 DAW.

Angier, Natalie. The Beauty and the Beastly: new views on the nature of life. In this book, the Pulitzer Prize winning author offers us something new to ponder, whether she's proving that dolphins aren't cute, describing androstenedione, the female equivalent of testosterone, or explaining how joy actually promotes health..

Natterson-Horowitz, Barbara. Zoobiquity : what animals can teach us about health and the science of healing. Psychiatrist Natterson-Horowitz and science writer Bowers look at the remarkable correspondences between the way human beings and animals live, die, get sick, and heal in their natural settings. Shelf Number 636.089 NAT.

Sandlin, Lee. Storm Kings: the untold history of America's first storm chasers. Tells the story of the supercell tornado, describing the origins of meteorology, and the quirky, pioneering, weather-obsessed scientists who helped change America. Shelf Number 551.553 SAN.

Wilkerson, Isabel. The Warmth of Other Suns: the epic story of America's great migration. Chronicles the decades-long migration of African-Americans who fled the South for northern and western cities between 1915 and 1970, discussing how they altered the cities of America and the African-American community. Shelf Number 304.8 WIL.

Astronomy, Chemistry and Physics

Deutsch, David. The Fabric of Reality: a leading scientist interweaves evolution, theoretical physics and computer science to offer a new understanding of reality. Explains and connects many topics at the leading edge of current research and thinking, such as quantum computers, the physics of time travel,

the comprehensibility of nature and the physical limits of virtual reality, the significance of human life, and the ultimate fate of the universe. Shelf Number 530.01 DEU.

Hawking, Stephen. The Grand Design. Stephen Hawking and Leonard Mlodinow present the most recent scientific thinking about these and other abiding mysteries of the universe, in nontechnical language marked by brilliance and simplicity. Shelf Number 530.1 HAW.

Stein, James D. Cosmic Numbers: the numbers that define our universe. Mathematics professor James D. Stein traces the discovery, evolution, and interrelationships of the numbers that define our world. Shelf Number 530.11 STE.

Brown, Mike. How I Killed Pluto and Why It Had It Coming. Astronomer Mike Brown describes how his search for a tenth planet, Eris, a planet more massive than Pluto, led to the demotion of Pluto to a dwarf planet. Shelf Number 523.49 BRO.

Le Couteur, Penny. Napoleon's Buttons: 17 molecules that changed history. Examines the roles that the molecular properties of such items as the birth control pill, caffeine, and the buttons on the uniforms of Napoleon's army have played in the course of history. Shelf Number 540 LEC.

Favorite Authors

Try anything by these science writers and you won't be disappointed!

Roach, Mary. Spook : science tackles the afterlife (shelf number 129 ROA); Grunt : the curious science of humans at war (Shelf Number 355.07 ROA); Gulp : adventures on the alimentary canal (Shelf Number 612.6 ROA); Packing for Mars : the curious science of life in the void (Shelf Number 571.091 ROA); Stiff : the curious lives of human cadavers (Shelf Number 611 ROA). Bestselling author Mary Roach covers all sorts of popular sciences with humor as she tackles the most pondered and least understood conundrums that have baffled humans for centuries.

Sacks, Oliver. The Mind's Eye (Shelve Number 616.855 SAC); Musicophilia : tales of music and the brain (Shelf Number 781.11 SAC); The Man Who Mistook His Wife for a Hat and Other Clinical Tales (Shelf Number 616.8 SAC); Hallucinations (Shelf Number 616.89 SAC); The Island of the Colorblind (Shelf Number 617.759 SAC). British naturalist, neurologist and internationally best-selling author recounts his most fascinating case studies about his patient's disorders and conditions, as well as how the normal brain deals with perception, memory and individuality.

Zimmer, Carl. Soul Made Flesh: the discoveries of the brain and how it changed the world (Shelf Number 612.82 ZIM); A Planet of Viruses (Shelf Number 362.196 ZIM); Parasite Rex : inside the bizarre world of nature's most dangerous creatures (Shelf Number 591.7 ZIM). Zimmer is a popular science writer who specializes in evolution, parasites, and medicine. Fun fact: he has a species of tapeworm named for him!