

Life The First Four Billion Years Walker Studio

A lighthearted nonfiction picture book about the formation and history of the Earth--told from the perspective of the Earth itself! "Hi, I'm Earth! But you can call me Planet Awesome." Prepare to learn all about Earth from the point-of-view of Earth herself! In this funny yet informative book, filled to the brim with kid-friendly facts, readers will discover key moments in Earth's life, from her childhood more than four billion years ago all the way up to present day. Beloved children's book author Stacy McAnulty helps Earth tell her story, and award-winning illustrator David Litchfield brings the words to life. The book includes back matter with even more interesting tidbits. This title has Common Core connections.

Harvard's acclaimed geologist "charts Earth's history in accessible style" (AP) "A sublime chronicle of our planet." –Booklist, STARRED review How well do you know the ground beneath your feet? Odds are, where you're standing was once cooking under a roiling sea of lava, crushed by a towering sheet of ice, rocked by a nearby meteor strike, or perhaps choked by poison gases, drowned beneath ocean, perched atop a mountain range, or roamed by fearsome monsters. Probably most or even all of the above. The story of our home planet and the organisms spread across its surface is far more spectacular than any Hollywood blockbuster, filled with enough plot twists to rival a bestselling thriller. But only recently have we begun to piece together the whole mystery into a coherent narrative. Drawing on his decades of field research and up-to-the-minute understanding of the latest science, renowned geologist Andrew H. Knoll delivers a rigorous yet accessible biography of Earth, charting our home planet's epic 4.6 billion-year story. Placing twenty first-century climate change in deep context, A Brief History of Earth is an indispensable look at where we've been and where we're going.

Features original illustrations depicting Earth history and nearly 50 figures (maps, tables, photographs, graphs).

Describes the behavior of elephants in a family group, particularly the role of the older female elephants.

The senior paleontologist at London's Natural History Museum presents an account of life on Earth from the Big Bang to the advent of humankind, based entirely on the evidence of fossils, stones, and other natural artifacts.

The first four billion years. v.2. The development of life. v.3. The earth and the universe

Microcosmos

Life on a Young Planet

Life in a Pond

The Story of the Animals and Plants That Time Has Left Behind

Decoding Four Billion Years of Life, from Ancient Fossils to DNA

Australophthecines, dinosaurs, trilobites--such fossils conjure up images of lost worlds filled with vanished organisms. But in the full history of life, ancient animals, even the trilobites, form only the half-billion-year tip of a nearly four-billion-year iceberg. Andrew Knoll explores the deep history of life from its origins on a young planet to the incredible Cambrian explosion, presenting a compelling new explanation for the emergence of biological novelty. The very latest discoveries in paleontology--many of them made by the author and his students--are integrated with emerging insights from molecular biology and earth system science to forge a broad understanding of how the biological diversity that surrounds us came to be. Moving from Siberia to Namibia to the Bahamas, Knoll shows how life and environment have evolved together through Earth's history. Innovations in biology have helped shape our air and oceans, and, just as surely, environmental change has influenced the course of evolution, repeatedly closing off opportunities for some species while opening avenues for others. Readers go into the field to confront fossils, enter the lab to discern the inner workings of cells, and alight on Mars to ask how our terrestrial experience can guide exploration for life beyond our planet. Along the way, Knoll brings us up-to-date on some of science's hottest questions, from the oldest fossils and claims of life beyond the Earth to the hypothesis of global glaciation and Knoll's own unifying concept of "permissive ecology." In laying bare Earth's deepest biological roots, Life on a Young Planet helps us understand our own place in the universe--and our responsibility as stewards of a world four billion years in the making. In a new preface, Knoll describes how the field has broadened and deepened in the decade since the book's original publication.

A collection of unusual facts, games, puzzles, activities, and artwork centering around the world of insects.

Hailed by The New York Times for writing "with wonderful clarity about science . . . that effortlessly teaches as it zips along," nationally bestselling author Robert M. Hazen offers a radical new approach to Earth history in this intertwined tale of the planet's living and nonliving spheres. With an astrobiologist's imagination, a historian's perspective, and a naturalist's eye,

Hazen calls upon twenty-first-century discoveries that have revolutionized geology and enabled scientists to envision Earth's many iterations in vivid detail—from the mile-high lava tides of its infancy to the early organisms responsible for more than two-thirds of the mineral varieties beneath our feet. Lucid, controversial, and on the cutting edge of its field, The Story of Earth is popular science of the highest order. "A sweeping rip-roaring yarn of immense scope, from the birth of the elements in the stars to meditations on the future habitability of our world." -Science "A fascinating story." -Bill McKibben "A fantastic, provocative book about where we are now and where we are going" Phil Simon Huffington Post Amazon, Apple, Facebook, and Google are the four most influential companies on the planet. Just about everyone thinks they know how they got there. Just about everyone is wrong. For all that’s been written about the Four over the last two decades, no one has captured their power and staggering success as insightfully as Scott Galloway. Instead of buying the myths these companies broadcast, Galloway asks fundamental questions: - How did the Four infiltrate our lives so completely that they’re almost impossible to avoid (or boycott)? - Why does the stock market forgive them for sins that would destroy other firms? - And as they race to become the world’s first trillion-dollar company, can anyone challenge them? In the same irreverent style that has made him one of the world’s most celebrated business professors, Galloway deconstructs the strategies of the Four that lurk beneath their shiny veneers. He shows how they manipulate the fundamental emotional needs that have driven us since our ancestors lived in caves, at a speed and scope others can’t match. And he reveals how you can apply the lessons of their ascent to your own business or career. Whether you want to compete with them, do business with them, or simply live in the world they dominate, you need to understand the Four.

A (Very) Short History of Life on Earth

Ape

Life: an Unauthorized Biography (Text Only)

Oxygen

The Story of Life: Evolution (Extended Edition)

4.6 Billion Years in 12 Pithy Chapters

Discover the greatest story ever told: the story of life on our planet, from the big bang to the dinosaurs and beyond. Before humans took their first steps, there were billions of years of vibrant and varied life on earth. Discover the fascinating story of our planet, from the formation of the universe to the first mammals, and all the incredible life that flourished in-between. Covering ice ages and fossils, life in the teeming primeval seas and the first life on land, the time of the dinosaurs and the rise of the mammals, Martin Jenkins navigates through millions of years of prehistory in enthralling and accessible style. With art from illustrator Grahame Baker Smith, this is a captivating journey through the life of our planet before we called it ours.

The founder and executive chairman of the World Economic Forum on how the impending technological revolution will change our lives We are on the brink of the Fourth Industrial Revolution. And this one will be unlike any other in human history. Characterized by new technologies fusing the physical, digital and biological worlds, the Fourth Industrial Revolution will impact all disciplines, economies and industries - and it will do so at an unprecedented rate. World Economic Forum data predicts that by 2025 we will see: commercial use of nanomaterials 200 times stronger than steel and a million times thinner than human hair; the first transplant of a 3D-printed liver; 10% of all cars on US roads being driverless; and much more besides. In The Fourth Industrial Revolution, Schwab outlines the key technologies driving this revolution, discusses the major impacts on governments, businesses, civil society and individuals, and offers bold ideas for what can be done to shape a better future for all.

The shifting continents of the Earth are heading for inevitable collision: 250 million years from now, all the land masses on this planet will come together in a single, gigantic supercontinent which no human is ever likely to see. That future supercontinent will not be the first to form on Earth, nor will it be the last. Each cycle lasts half a billion years, making it the grandest of all the patterns in nature. It is scarcely a century since science first understood how Pangaea, the supercontinent which gave birth to dinosaurs, split apart, but scientists can now look back three-quarters of a billion years into the Earth's almost indecipherable past to reconstruct Pangaea's predecessor, and computer-model the shape of the Earth's far-distant future. Ted Nield's book tells the astounding story of how that science emerged (often in the face of fierce opposition), and how scientists today are using the most modern techniques to draw information out of the oldest rocks on Earth. It also reveals the remarkable human story of the Atlantis-seeking visionaries and madmen who have been imagining lost or undiscovered continents for centuries. Ultimately all supercontinents exist only in the human imagination, but understanding the 'Supercontinent Cycle' represents nothing less than finally knowing how our planet works.

The fame and influence of Michelangelo Buonarroti (1475–1564) were as immediate as they were unprecedented. It is not surprising, therefore, that he was the only living artist Giorgio Vasari included in the first edition of Lives of the Most Excellent Painters, Sculptors and Architects, published in 1550. Revised and expanded in 1568, Vasari’s monumental work comprises more than two hundred biographies; for centuries it has been recognized as a seminal text in art history and one of the most important sources on the Italian Renaissance. Vasari’s biography of Michelangelo, the longest in his Lives, presents Michelangelo’s oeuvre as the culminating achievement of Renaissance painting, sculpture, and architecture. He tells the grand story of the artist’s expansive career, profiling his working habits; describing the creation of countless masterpieces, from the David to the Sistine Chapel ceiling; and illuminating his relationships with popes and other illustrious patrons. A lifelong friend, Vasari also quotes generously from the correspondence between the two men; the narrative is further enhanced by an abundance of colorful anecdotes. The volume’s forty-two illustrations convey the range and richness of Michelangelo’s art. An introduction by the scholar David Hemsloll traces the textual development of Vasari’s Lives and situates his biography of Michelangelo in the broader context of Renaissance art history.

The Story of Life from the Big Bang to the Evolution of Humans

Vol. 1 The First Four Billion Years

The Fourth Industrial Revolution

The First 4.5 Billion Years, from Stardust to Living Planet

A Four Billion Year History

Horseshoe Crabs and Velvet Worms

Presents information, in a question and answer format, about the customs, habits, and habitats of people from different countries around the world with emphasis on what makes their cultures unique.

An introduction to evolutionary biology, with sixteen essays about the history and philosophy of the field, related empirical and theoretical questions about topics such as speciation, adaptation, and development, and articles on important figures, social and political issues, and related religious topics.

Text and photographs introduce ponds, and includes information on the plants found in ponds such as water lilies and cattails, and animals found in ponds such as fish, frogs, and ducks.

The author of the bestselling Your Inner Fish gives us a brilliant, up-to-date account of the great transformations in the history of life on Earth. Over billions of years, fish evolved to walk on land, reptiles transformed into birds that fly, and ape-like primates changed into humans who walk on two legs, talk and write. This is a story full of surprises. If you think that feathers arose to help animals fly, you'd be in good company. You'd also be entirely wrong. Neil Shubin delves deep into the mystery of life, the ongoing revolutions in our understanding of how we got here, and brings us closer to answering one of the great questions – was life on earth inevitable...or was it all an accident?

The Four

A World of Plants

The Story of Earth

The Search for the Origin and Meaning of Life

The Emperor's Egg

Life: A National History of the First Four Billion Years of Life on Earth

By one of Britain's most gifted scientists: a magnificently daring and compulsively readable account of life on Earth (from the "big bang" to the advent of man), based entirely on the most original of all sources--the evidence of fossils. With excitement and driving intelligence, Richard Fortey guides us from the barren globe spinning in space, through the very earliest signs of life in the sulphurous hot springs and volcanic vents of the young planet, the appearance of cells, the slow creation of an atmosphere and the evolution of myriad forms of plants and animals that could then be sustained, including the magnificent era of the dinosaurs, and on to the last moment before the debut of Homo sapiens. Ranging across multiple scientific disciplines, explicating in wonderfully clear and refreshing prose their findings and arguments--about the origins of life, the causes of species extinctions and the first appearance of man--Fortey weaves this history out of the most delicate tracers: left in rock, stone and earth. He also explains how, on each aspect of nature and life, scientists have reached the understanding we have today, who made the key discoveries, who their opponents were and why certain ideas won. Brimful of wit, fascinating personal experience and high scholarship, this book may well be our best introduction yet to the complex history of life on Earth. A Book-of-the-Month Club Main Selection With 32 pages of photographs

Award-winning children's book creators Martin Jenkins and Grahame Baker-Smith team up for a large-scale look at our planet, from the big bang to the dinosaurs and beyond. Before humans took their first steps, there were billions of years of vibrant and varied life-forms on Earth. Discover the story of our planet during this time, from the formation of the universe to the first mammals and all the incredible life that flourished in between. Covering ice ages and fossils, the first life in the sea and on land, the time of the dinosaurs, and the rise of mammals, Martin Jenkins navigates through millennia of prehistory in a style both enthralling and accessible. With superb illustrations from Kate Greenaway Medal winner Grahame Baker-Smith, this is a captivating journey through the life of our planet before we called it ours.

This ebook edition does not include illustrations. A magisterial exploration of the natural history of the first four thousand million years of life on and in the earth, by one of Britain's most dazzling science writers.

A guide to the Earth from the very earliest signs of life on the rims of volcanoes, to the first appearance of man. The book ranges across many scientific disciplines, analyzing their arguments and findings, and showing readers whose the discoveries have been and whose the arguments.

Life: the First Four Billion Years

A Brief History of Earth

The Four-Billion-Year Story of How We Got Conscious Brains

The First Three Billion Years of Evolution on Earth - Updated Edition

Eyewitness to Evolution

The First Four Billion Years

From one of the world's leading natural scientists and the acclaimed author of Trilobite!, Life: A Natural History of Four Billion Years of Life on Earth and Dry Storeroom No. 1 comes a fascinating chronicle of life's history told not through the fossil record but through the stories of organisms that have survived, almost unchanged, throughout time. Evolution, it seems, has not completely obliterated its tracks as more advanced organisms have evolved; the history of life on earth is far older—and odder—than many of us realize. Scattered across the globe, these remarkable plants and animals continue to mark seminal events in geological time. From a moonlit beach in Delaware, where the hardy horseshoe crab shuffles its way to a frenzy of mass mating just as it did 450 million years ago, to the dense rainforests of New Zealand, where the elusive, unprepossessing velvet worm has burrowed deep into rotting timber since before the breakup of the ancient supercontinent, to a stretch of Australian coastline with stromatolite formations that bear witness to the Precambrian dawn, the existence of these survivors offers us a tantalizing glimpse of pivotal points in evolutionary history. These are not “living fossils” but rather a handful of tenacious creatures of days long gone. Written in buoyant, sparkling prose, Horseshoe Crabs and Velvet Worms is a marvelously captivating exploration of the world’s old-timers combining the very best of science writing with an explorer’s sense of adventure and wonder.

The origin of life remains one of the great unsolved mysteries of science. Is life a bizarre chemical accident, unique to the Earth's history? Or is it somehow written into the underlying laws of the universe, destined to emerge wherever conditions allow? Acclaimed scientist and science writer Paul Davies examines the very latest theories of biogenesis. Recent discoveries of bizarre 'living fossils' in the hot crust of the Earth, and possible traces of bacteria in a Martian meteorite, have forced a radical rethinking about the earliest living things. The Fifth Miracle reveals the remarkable new theories and discoveries that seem set to transform our understanding of life's role in the unfolding drama of the cosmos.

In the tradition of Richard Dawkins, Bill Bryson, and Simon Winchester—An entertaining and uniquely informed narration of Life's life story. In the beginning, Earth was an inhospitably alien place—in constant chemical flux, covered with churning seas, crafting its landscape through incessant volcanic eruptions. Amid all this tumult and disaster, life began. The earliest living things were no more than membranes stretched across microscopic gaps in rocks, where boiling hot jets of mineral-rich water gushed out from cracks in the ocean floor. Although these membranes were leaky, the environment within them became different from the raging maelstrom beyond. These havens of order slowly refined the generation of energy, using it to form membrane-bound bubbles that were mostly-faithful copies of their parents—a foamy lather of soap-bubble cells standing as tiny clenched fists, defiant against the lifeless world. Life on this planet has continued in much the same way for millennia, adapting to literally every conceivable setback that living organisms could encounter and thriving, from these humblest beginnings to the thrilling and unlikely story of ourselves. In A (Very) Short History of Life on Earth, Henry Gee zips through the last 4.6 billion years with infectious enthusiasm and intellectual rigor. Drawing on the very latest scientific understanding and writing in a clear, accessible style, he tells an enlightening tale of survival and persistence that illuminates the delicate balance within which life has always existed.

Draws on the latest scientific information to recreate the story of life on Earth, with introductory articles on evolution and an index to the hundreds of species depicted in the illustrations.

Your Inner Fish

A Journey into the 3.5-Billion-Year History of the Human Body

Earth! My First 4.54 Billion Years

The Deep History of Ourselves

Supercontinent

An Unauthorised Biography : a Natural History of the First Four Thousand Million Years of Life on Earth

"A definitive guide to astronomy's hottest field." —The Economist Since its formation nearly five billion years ago, our planet has been the sole living world in a vast and silent universe. But over the past two decades, astronomers have discovered thousands of “exoplanets,” including some that could be similar to our own world, and the pace of discovery is accelerating. In a fascinating account of this unfolding revolution, Lee Billings draws on interviews with the world’s top experts in the search for life beyond Earth. He reveals how the search for exoplanets is not only a scientific challenge, but also a reflection of our culture’s timeless hopes, dreams, and fears.

Fabulous facts about nature’s most devoted dad, in an utterly charming picture book. Features an audio read-along! Can you imagine spending the winter outdoors in Antarctica without anything to eat? That’s just what the male Emperor penguin does. While his mate is off swimming and catching loads of fish, he stands around in the freezing cold with an egg on his feet for two whole months, keeping it warm and waiting for it to hatch. Welcome to the story of the world’s most devoted dad! Back matter includes an index.

This edition does not include illustrations. 'Dry Store Room No. 1' is an intimate biography of the Natural History Museum, celebrating the eccentric personalities who have peopled it and capturing the wonders of scientific endeavour, academic rigour and imagination.

From the moment life crawled out of the oceans and onto land, to when our primate ancestors climbed down from the trees, the history of Planet Earth is filled with incredible stories. This beautifully illustrated guide explores some of the most exciting and incredible events in evolution, through 13 case studies. Step back in time and discover a world where whales once walked, crocodiles were warm-blooded, and snakes had legs! Meet terrifying giant birds, and tiny elephants living on islands in this fascinating creature guide like no other. Learn how whales once walked on four legs before taking to the oceans; how dinosaurs evolved into birds; and how the first cats were small and lived in trees. Featuring a stunning mix of annotated illustrations, illustrated scenes, and

This new extended edition of Story of Life is the perfect gift for those with a love of the natural world. Wander the galleries - open 365 days a year - and discover a collection of curated exhibits on every page, accompanied by informative text. Each chapter features key species from a different geological era with fantastic new artwork from Katie Scott.

Grandma Elephant's in Charge

Life

The Search for Life Among the Stars

Evolution

Ten Billion Years in the Life of our Planet

World We Live in

Neil Shubin, the paleontologist and professor of anatomy who co-discovered Tiktaalik, the “fish with hands,” tells the story of our bodies as you've never heard it before. The basis for the PBS series, By examining fossils and DNA, he shows us that our hands actually resemble fish fins, our heads are organized like long-extinct jawless fish, and major parts of our genomes look and function like those of worms and bacteria. Your Inner Fish makes us look at ourselves and our world in an illuminating new light. This is science writing at its finest—enlightening, accessible and told with irresistible enthusiasm. This new extended edition of Story of Life is the perfect gift for those with a love of the natural world. Wander the galleries - open 365 days a year - and discover a collection of curated exhibits on every page, accompanied by informative text. Each chapter features key species from a different geological era with fantastic new artwork from Katie Scott.

Longlisted for the PEN/E.O. Wilson Literary Science Writing Award A leading neuroscientist offers a history of the evolution of the brain from unicellular organisms to the complexity of animals and human beings today Renowned neuroscientist Joseph LeDoux digs into the natural history of life on earth to provide a new perspective on the similarities between us and our ancestors in deep time. This page-turning survey of the whole of terrestrial evolution sheds new light on how nervous systems evolved in animals, how the brain developed, and what it means to be human. In The Deep History of Ourselves, LeDoux argues that the key to understanding human behavior lies in viewing evolution through the prism of the first living organisms. By tracking the chain of the evolutionary timeline he shows how even the earliest single-cell organisms had to solve the same problems we and our cells have to solve each day. Along the way, LeDoux explores our place in nature, how the evolution of nervous systems enhanced the ability of organisms to survive and thrive, and how the emergence of what we humans understand as consciousness made our greatest and most horrendous achievements as a species possible.

Chronicles the evolution of life on Earth, focusing on the microcosm researchers believe life began with.

EVOLUTION

Trilobite

A New History of Life

The Life of Michelangelo

The Fifth Miracle

Some Assembly Required

With Trilobite, Richard Fortey, paleontologist and author of the acclaimed Life, offers a marvelously written, smart and compelling, accessible and witty scientific narrative of the most ubiquitous of fossil creatures. Trilobites were shelled animals that lived in the oceans over five hundred million years ago. As bewilderingly diverse then as the beetle is today, they survived in the arctic or the tropics, were spiky or smooth, were large as lobsters or small as fleas. And because they flourished for three hundred million years, they can be used to glimpse a less evolved world of ancient continents and vanished oceans.

Erudite and entertaining, this book is a uniquely exuberant homage to a fabulously singular species.

A conservation biologist and a printmaker team up for a fascinating, visually arresting guide to botanical history, biodiversity, and the rich inner lives of plants. A must-read for budding gardeners! Covering more than twenty-five subjects, from photosynthesis and permaculture to the hidden world of Victorian plant hunters, this stylish illustrated guide is packed with scientific insight into the critical role plants play in the drama of life on Earth. Did you know that some plants steal while others defend themselves against attack? That the largest cacti can reach sixty-six feet tall and weigh more than a car? That there are meat-eating plants the size of footballs? Readers young and old will marvel at the wondrous diversity and adaptability of plants, from trees and tropical species to those that have evolved to master extreme conditions. A brisk narrative bursting with facts—all carefully organized with maps and charts in richly patterned vintage-style illustrations—make for a vivid guide to all that grows . . . and a beautiful gift book for anyone interested in the environment.

The air we breathe is twenty-one percent oxygen, an amount higher than on any other known world. While we may take our air for granted, Earth was not always an oxygenated planet. How did it become this way? Donald Canfield—one of the world's leading authorities on geochemistry, earth history, and the early oceans—covers this vast history, emphasizing its relationship to the evolution of life and the evolving chemistry of the Earth. Canfield guides readers through the various lines of scientific evidence, considers some of the wrong turns and dead ends along the way, and highlights the scientists and researchers who have made key discoveries in the field. Showing how Earth's atmosphere developed over time, Oxygen takes readers on a remarkable journey through the history of the oxygenation of our planet.

An estimated 4.6 billion years ago, the Earth and Moon were formed in a violent impact. On this, many agree, and even more that a long time after that, life began. However, few know that the first life on the Earth may not have emerged on this planet, but could, in fact, have begun on Mars, brought here by meteorites. In this revolutionary book, leading scientists Peter Ward and Joe Kirschvink rewrite the principal account of the history of life on Earth. They show not only how the rise of animals was delayed for billions of years, but also what it was that first forced fish out of the sea and onto the land. Together, the two scientists explain how developments in the environment led to multiple Ice Ages before the emergence of dinosaurs and other giant animals, and what the true cause of these great beasts' eventual extinction was. Finally, charting the course of our own evolution, they explore whether this generation will see the end of the human species. A New History of Life proves not only that much of what we think we know should be unlearned, but also that the true history of life on Earth is much more surprising and wonderful than we could ever have imagined.

And Other Incredible Evolutionary Journeys

Five Billion Years of Solitude

The Story of Life

The Big Book of Bugs!

The Radical New Discoveries about the Origins and Evolution of Life on Earth

When the Whales Walked