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# Life On A Young Planet The First Three Billion Years Of Evolution On Earth The First Three Billion Years Of Evolution On Earth Andrew H Knoll

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Planet Earth Is Blue  
 Wonderful Flight to the Mushroom Planet  
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 Earth! My First 4.54 Billion Years  
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 Extinction  
 Our World: The Story of Life on Earth  
 Meet the Planets  
 Just Right: Searching for the Goldilocks Planet

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## ARNAV JERAMIAH

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*Planet Earth Is Blue* Roaring Brook Press  
 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. [Wonderful Flight to the Mushroom Planet National Geographic Books](#)

Some 250 million years ago, the earth suffered the greatest biological crisis in its history. Around 95 percent of all living species died out—a global catastrophe far greater than the dinosaurs' demise 185 million years later. How this happened remains a mystery. But there are many competing theories. Some blame huge volcanic eruptions that covered an area as large as the continental United States; others argue for sudden changes in ocean levels and chemistry, including burps of methane gas; and still others cite the impact of an extraterrestrial object, similar to what caused the dinosaurs' extinction. Extinction is a paleontological mystery story. Here, the world's foremost authority on the subject provides a fascinating overview of the evidence for and against a whole host of

hypotheses concerning this cataclysmic event that unfolded at the end of the Permian. After setting the scene, Erwin introduces the suite of possible perpetrators and the types of evidence paleontologists seek. He then unveils the actual evidence--moving from China, where much of the best evidence is found; to a look at extinction in the oceans; to the extraordinary fossil animals of the Karoo Desert of South Africa. Erwin reviews the evidence for each of the hypotheses before presenting his own view of what happened. Although full recovery took tens of millions of years, this most massive of mass extinctions was a powerful creative force, setting the stage for the development of the world as we know it today. In a new preface, Douglas Erwin assesses developments in the field since the book's initial publication.

#### **Life on a Young Planet** Basic Books

A beautiful ode to our planet and a clarion call to protect it. The perfect introduction to climate change for the youngest readers. Our planet seems tough, but it is fragile. Our planet seems big, but it needs us. Spare, lyrical text and exquisite illustrations show how seemingly small and insignificant changes -- from carbon molecules that become pollutants, to one degree on a thermometer, to one person's actions -- when multiplied, can have ripple effects that endanger the lives of all creatures on earth. Fortunately, the choices we make have an impact, too, and our collective actions, multiplied together, can change our planet and our world for the better. Two-time Newbery Award honoree, Sibert Award honoree, and former science educator, Christina Soontornvat creates a stunning tribute to our planet illuminating with clarity and hope the causes of climate change as well as hands-on solutions that will edify and empower even the youngest readers. Rahele Jomepour Bell infuses her pictures with jaw-dropping explosions of color on every page, and invites readers to follow the storylines of several families as she celebrates the breathtaking beauty of our planet. Clear, informative end notes answer a myriad of questions in simple language, and cite irrefutable sources. A treasure for anyone looking to help children understand the natural world, foster responsibility and stewardship, and inspire budding young climate activists.

#### **Tangled Planet** Henry Holt and Company (BYR)

In *What on Earth Happened?*, Christopher Lloyd tells our story from the very beginning of time to the present day, taking giant narrative leaps across millennia and continents. Along the way, he explains exactly how Muslim conquest gave Spain its paella, how the Earth's collision with another young planet created the moon, how dragonflies the size of seagulls emerged out of the prehistoric waters, and how the Big Bang can be detected in your television. Accessible and endlessly entertaining, this massive book draws on disciplines as wide-ranging as astrophysics and anthropology and will appeal to experts, amateur enthusiasts and the simply curious alike. Completed by 250 colourful photographs, maps, historic paintings, engravings and specially commissioned illustrations, *What on Earth Happened?* takes an entertaining and informed sideways look at the last 13.7 billion years in the life of our universe.

#### **The Kingfisher Book of Planet Earth** Penguin

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 Planet for Rent* Abrams

I guess I always felt even if the world came to an end, McDonald's still would be open. High school sophomore Miranda's disbelief turns to fear in a split second when an asteroid knocks the moon closer to Earth, like "one marble hits another." The result is catastrophic. How can her family prepare for the future when worldwide tsunamis are wiping out the coasts, earthquakes are rocking the continents, and volcanic ash is blocking out the sun? As August turns dark and wintery in northeastern Pennsylvania, Miranda, her two brothers, and their mother retreat to the unexpected safe haven of their sunroom, where they subsist on stockpiled food and limited water in the warmth of a wood-burning stove. Told in a year's worth of journal entries, this heart-pounding story chronicles Miranda's struggle to hold on to the most important resource of all--hope--in an increasingly desperate and unfamiliar world. An extraordinary series debut Susan Beth Pfeffer has written several companion novels to *Life As We Knew It*, including *The Dead and the Gone*, *This World We Live In*, and *The Shade of the Moon*.

#### *No Planet B* HarperCollins

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

#### **Planet of the Ants: The Hidden Worlds and Extraordinary Lives of Earth's Tiny Conquerors** Arbordale Publishing

"Tender and illuminating. A beautiful debut." --Rebecca Stead, Newbery Medal-winning author of *When You Reach Me* A heartrending and hopeful story about a nonverbal girl and her passion for space exploration, for fans of *See You in the Cosmos*, *Mockingbird*, and *The Thing About Jellyfish*. Twelve-year-old Nova is eagerly awaiting the launch of the space shuttle Challenger--it's the first time a teacher is going into space, and kids across America will watch the event on live TV in their classrooms. Nova and her big sister, Bridget, share a love of astronomy and the space program. They planned to watch the launch together. But Bridget has disappeared, and Nova is in a new foster home. While foster families and teachers dismiss Nova as severely autistic and nonverbal, Bridget understands how intelligent and special Nova

is, and all that she can't express. As the liftoff draws closer, Nova's new foster family and teachers begin to see her potential, and for the first time, she is making friends without Bridget. But every day, she's counting down to the launch, and to the moment when she'll see Bridget again. Because as Bridget said, "No matter what, I'll be there. I promise."

**Back to Earth** Houghton Mifflin Harcourt

In this, the 11th book in the Word by Word series the young readers will use their new skills to discover facts and history about: 1. Our world 2. How things started 3. From gas and dust to stars and planets 4. The young planet Earth 5. The changing Earth 6. Where did life start? 7. The first life 8. Early bacteria 9. Life in the seas 10. The first life on land 11. Creatures of both land and water 12. Reptiles 13. The first mammals 14. More and more mammals 15. The first birds 16. Charles Darwin 17. More and more changes 18. Stronger and more beautiful animals All using the strictly controlled structure and vocabulary mastered in the previous 10 Word by Word easy readers. (Note: Buying the paperback version allows you to download the eBook version for free.)

**Life as We Knew it** Grand Central Publishing

Uses the metaphor of an ark to explain why biodiversity is important to the survival of living things, including us.

**The Green Book** Basic Books (AZ)

Jill Paton Walsh's classic science fiction novel *The Green Book* is now available from Square Fish with a brand-new cover! Pattie and her family are among the last refugees to flee a dying Earth in an old spaceship. And when the group finally lands on the distant planet which is to be their new home, it seems that the four-year journey has been a success. But as they begin to settle this shiny new world, they discover that the colony is in serious jeopardy. Nothing on this planet is edible, and they may not be able to grow food. With supplies dwindling, Pattie and her sister decide to take the one chance that might make life possible on Shine.

**The Life and Death of Planet Earth** HarperCollins UK

Although industrialization and modernization have dramatically improved the quality of our lives, they have also largely contributed to the destruction of our natural resources by engendering waste and creating depletion through overuse. As the world's population continues to grow and consume, litter, chemicals, and a host of other harmful products overrun our land, air, and water. This intriguing volume examines the various pollutants and human activities that threaten the natural world, with a special look at deforestation and desertification.

**The Late Great Planet Earth** Yearling

The earth explodes in shoots of hot magma, glaciers crash into the ocean, grotesque creatures lurk in deep caves... follow noted National Geographic explorer and photographer Carsten Peter as he shows us that our precious planet Earth is one wild and extreme place Tornadoes, ice caves, glaciers, lightning--no territory or phenomenon is too scary for daring explorer Carsten Peter, who is right at home exploring the most outrageous places and raucous natural occurrences around the globe. Kids can follow along as he heads into extreme places and reveals the science and background behind these seemingly unexplainable natural places and phenomenon. Underlying each of his adventures is a dose of hard science, intriguing history, provocative images, tips, gear and gadget advice, and more to help kids learn about the Earth how they can help preserve the planet.

**How to Change Everything** DCB

A classic introduction to the story of Earth's origin and evolution—revised and expanded for the twenty-first century Since its first publication more than twenty-five years ago, *How to*

*Build a Habitable Planet* has established a legendary reputation as an accessible yet scientifically impeccable introduction to the origin and evolution of Earth, from the Big Bang through the rise of human civilization. This classic account of how our habitable planet was assembled from the stuff of stars introduced readers to planetary, Earth, and climate science by way of a fascinating narrative. Now this great book has been made even better. Harvard geochemist Charles Langmuir has worked closely with the original author, Wally Broecker, one of the world's leading Earth scientists, to revise and expand the book for a new generation of readers for whom active planetary stewardship is becoming imperative. Interweaving physics, astronomy, chemistry, geology, and biology, this sweeping account tells Earth's complete story, from the synthesis of chemical elements in stars, to the formation of the Solar System, to the evolution of a habitable climate on Earth, to the origin of life and humankind. The book also addresses the search for other habitable worlds in the Milky Way and contemplates whether Earth will remain habitable as our influence on global climate grows. It concludes by considering the ways in which humankind can sustain Earth's habitability and perhaps even participate in further planetary evolution. Like no other book, *How to Build a Habitable Planet* provides an understanding of Earth in its broadest context, as well as a greater appreciation of its possibly rare ability to sustain life over geologic time. Leading schools that have ordered, recommended for reading, or adopted this book for course use: Arizona State University Brooklyn College CUNY Columbia University Cornell University ETH Zurich Georgia Institute of Technology Harvard University Johns Hopkins University Luther College Northwestern University Ohio State University Oxford Brookes University Pan American University Rutgers University State University of New York at Binghamton Texas A&M University Trinity College Dublin University of Bristol University of California-Los Angeles University of Cambridge University Of Chicago University of Colorado at Boulder University of Glasgow University of Leicester University of Maine, Farmington University of Michigan University of North Carolina at Chapel Hill University of North Georgia University of Nottingham University of Oregon University of Oxford University of Portsmouth University of Southampton University of Ulster University of Victoria University of Wyoming Western Kentucky University Yale University **Planet City** Princeton University Press

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).

**How to Build a Habitable Planet** Britannica Educational Publishing

“Beautifully illustrated with color photographs, the book offers a view into parallels between seemingly out-of-this-world ant societies and our own, including cities, an intense work ethic, division of labor, intragroup cooperation combined with genocidal outgroup warfare, even a kind of to-the-death national loyalty. The authors’ scientific rigor is matched by their joy in their subjects.”—The Wall Street Journal Shortlisted for the 2022 Helen and Kurt Wolff Translator’s Prize This sweeping portrait of the world’s uncontested six-legged conquerors will open your eyes to the secret societies thriving right beneath your feet—and shift your perspective on humanity. The closer you get to ants, the more human they look. Ants build megacities, tend gardens, wage wars, and farm livestock. Ants have flourished since the age of the dinosaurs. There are one million ants for every one of us. Engineered by nature to fulfill their particular roles, ants flawlessly perform a complex symphony of tasks to sustain their colony—seemingly without a conductor—from fearsome army ants, who stage twelve-hour hunting raids where they devour thousands, to gentle leafcutters cooperatively gardening in their peaceful underground kingdoms. Acclaimed biologist Susanne Foitzik has traveled the globe to study these master architects of Earth. Joined by journalist Olaf Fritsche, Foitzik invites readers deep into her world in both the field and the lab. Exploring these insects’ tiny yet incredible lives will inspire new respect for ants as a global superpower. Publisher’s note: Planet of the Ants was previously published in hardcover as Empire of Ants.

Zoo Quest Piatkus Books

The Sunday Times Bestseller A new, fully updated narrative edition of David Attenborough’s seminal biography of our world, The Living Planet.

Poisoning Planet Earth Word by Word Graded Readers

\*Goodreads Choice Award Winner for Best Science & Technology

Book of the Year\* In this scientifically informed account of the changes occurring in the world over the last century, award-winning broadcaster and natural historian shares a lifetime of wisdom and a hopeful vision for the future. See the world. Then make it better. I am 93. I've had an extraordinary life. It's only now that I appreciate how extraordinary. As a young man, I felt I was out there in the wild, experiencing the untouched natural world - but it was an illusion. The tragedy of our time has been happening all around us, barely noticeable from day to day -- the loss of our planet's wild places, its biodiversity. I have been witness to this decline. A Life on Our Planet is my witness statement, and my vision for the future. It is the story of how we came to make this, our greatest mistake -- and how, if we act now, we can yet put it right. We have one final chance to create the perfect home for ourselves and restore the wonderful world we inherited. All we need is the will to do so.

My Little Blue Planet Princeton University Press

Do you wonder if humans are the only beings who wonder if they are alone in the universe? Our sun is a star. In the night sky are all kinds of stars, and orbiting those stars are planets like the ones in our own solar system. Could those planets have life like we do on Earth? Planet Earth is not too big, not too small, not too hot, and not too cold. It’s just right. Our very own Goldilocks planet . . . Follow a young girl as she explores these questions in this gorgeous book about the wondrous search for another Goldilocks planet.

The Life of Super-Earths Haymarket Books

Knoll explores the deep history of life from its origins on a young planet to the incredible Cambrian explosion, with the very latest discoveries in paleontology integrated with emerging insights from molecular biology and earth system science. 100 illustrations.