

## The Discoveries And Opinions Of Galileo 1610 Letter To The Grand Duchess Christina

This book captures the painstaking, step-by-step process of excavation, and the wonders of the treasure-filled inner chamber. 106 on-the-spot photographs depict the phases of the discovery and the scrupulous cataloging of the treasures.

This brilliant book introduces 15 of the world's most incredible inventions to children. Using bitesize text and beautifully bright illustrations this is the perfect book for science and history lovers everywhere. The world is brimming full of incredible inventions - but where did it all begin? How did these incredible inventions come about? Journey back in time, travel across the world and discover incredible inventions from throughout history. Take a ride on the very first wheel, find your way and ensure you'll never get lost again with the compass, let the lights come on with electricity, watch as the world puffs into life with the steam engine and many more astounding inventions. Written with bite sized pieces of text and illustrated with bright and engaging artwork, this is the perfect introduction to some of the most amazing inventions that have helped make history. Learn fascinating facts about the people behind these inventions and how their discoveries changed the world forever. So what are you waiting for? Let's uncover The Story of Inventions!

Inventions featured: The wheel, the compass, paper, clocks, gunpowder, steam engines, vaccinations, computers, electricity, the telephone, the car, planes, plastic, nuclear weapons and the internet.

"Story-Lives of Great Musicians" by Francis Jameson Rowbotham. Published by Good Press. Good Press publishes a wide range of titles that encompasses every genre. From well-known classics & literary fiction and non-fiction to forgotten – or yet undiscovered gems – of world literature, we issue the books that need to be read. Each Good Press edition has been meticulously edited and formatted to boost readability for all e-readers and devices. Our goal is to produce eBooks that are user-friendly and accessible to everyone in a high-quality digital format.

A NEW YORK TIMES NOTABLE BOOK OF 2020 NAMED A BEST BOOK OF THE YEAR BY \* THE WASHINGTON POST \* THE ECONOMIST \* NEW SCIENTIST \* PUBLISHERS WEEKLY \* THE GUARDIAN From one of the most dynamic rising stars in astrophysics, an “engrossing, elegant” (The New York Times) look at five ways the universe could end, and the mind-blowing lessons each scenario reveals about the most important concepts in cosmology. We know the universe had a beginning. With the Big Bang, it expanded from a state of unimaginable density to an all-encompassing cosmic fireball to a simmering fluid of matter and energy, laying down the seeds for everything from black holes to one rocky planet orbiting a star near the edge of a spiral galaxy that happened to develop life as we know it. But what happens to the universe at the end of the story? And what does it mean for us now? Dr. Katie Mack has been contemplating these questions since she was a young student, when her astronomy professor informed her the universe could end at any moment, in an instant. This revelation set her on the path toward theoretical astrophysics. Now, with lively wit and humor, she takes us on a mind-bending tour through five of the cosmos's possible finales: the Big Crunch, Heat Death, the Big Rip, Vacuum Decay (the one that could happen at any moment!), and the Bounce. Guiding us through cutting-edge science and major concepts in quantum mechanics, cosmology, string theory, and much more, *The End of Everything* is a wildly fun, surprisingly upbeat ride to the farthest reaches of all that we know.

The Age of Wonder

(Astrophysically Speaking)

The Collector's Daughter

The Epic Discovery of Alien Solar Systems

Citizen Science

A History of the Dark Side of Reason

A Nobel Laureate offers impressions of the development of modern physics, emphasizing complex but less familiar personalities. Offers fascinating scientific background and compelling treatments of topics of current interest. 1980 edition.

The cutting-edge science that is taking the measure of the universe The Little Book of Cosmology provides a breathtaking look at our universe on the grandest scales imaginable. Written by one of the world's leading experimental cosmologists, this short but deeply insightful book describes what scientists are revealing through precise measurements of the faint thermal afterglow of the Big Bang—known as the cosmic microwave background, or CMB—and how their findings are transforming our view of the cosmos. Blending the latest findings in cosmology with essential concepts from physics, Lyman Page first helps readers to grasp the sheer enormity of the universe, explaining how to understand the history of its formation and evolution in space and time. Then he sheds light on how spatial variations in the CMB formed, how they reveal the age, size, and geometry of the universe, and how they offer a blueprint for the formation of cosmic structure. Not only does Page explain current observations and measurements, he describes how they can be woven together into a unified picture to form the Standard Model of Cosmology. Yet much remains unknown, and this incisive book also describes the search for ever deeper knowledge at the field's frontiers—from quests to understand the nature of neutrinos and dark energy to investigations into the physics of the very early universe.

The bestselling, "excellent...poignant—and scientifically lucid—portrait" (New York Times Book Review) of the remarkable Marie Curie. Through family interviews, diaries, letters, and workbooks that had been sealed for over sixty years, Barbara Goldsmith reveals the Marie Curie behind the myth—an all-too-human woman struggling to balance a spectacular scientific career, a demanding family, the prejudice of society, and her own passionate nature. Obsessive Genius is a dazzling portrait of Curie, her amazing scientific success, and the price she paid for fame.

"What every leader needs to know about dignity and how to create a culture in which everyone thrives. This landmark book from an expert in dignity studies explores the essential but under-recognized role of dignity as part of good leadership. Extending the reach of her award-winning book Dignity: Its Essential Role in Resolving Conflict, Donna Hicks now contributes a specific, practical guide to achieving a culture of dignity. Most people know very little about dignity, the author has found, and when leaders fail to respect the dignity

of others, conflict and distrust ensue. She highlights three components of leading with dignity: what one must know in order to honor dignity and avoid violating it; what one must do to lead with dignity; and how one can create a culture of dignity in any organization, whether corporate, religious, governmental, healthcare, or beyond. Brimming with key research findings, real-life case studies, and workable recommendations, this book fills an important gap in our understanding of how best to be together in a conflict-ridden world."--  
Obsessive Genius: The Inner World of Marie Curie (Great Discoveries)

Kipling Abroad

When We Cease to Understand the World

And the Science Deniers

Introduction to the Science of Stars and Stones

Age of Discovery

Sunday Times Bestseller 'A paradigm-smashing chronicle of joyous entanglement' Charles Foster

Waterstones Non-Fiction Book of the Month (September) Are trees social beings? How do trees live? Do they feel pain or have awareness of their surroundings?

Vigliani and Eaton's high-interest exploration of medicine begins in prehistory. The 5,000-year-old Iceman discovered frozen in the Alps may have treated his gallstones, Lyme disease, and hardening of the arteries with the 61 tattoos that covered his body—most of which matched acupuncture points—and the walnut-sized pieces of fungus he carried on his belt. The herbal medicines chamomile and yarrow have been found on 50,000-year-old teeth, and neatly bored holes in prehistoric skulls show that Neolithic surgeons relieved pressure on the brain (or attempted to release evil spirits) at least 10,000 years ago. From Mesopotamian pharmaceuticals and Ancient Greek sleep therapy through midwifery, amputation, bloodletting, Renaissance anatomy, bubonic plague, and cholera to the discovery of germs, X-rays, DNA-based treatments and modern prosthetics, the history of medicine is a wild ride through the history of humankind.

Four short works illuminate the discoveries and the philosophy of the Italian astronomer and physicist who fought for the scientist's release from religious and political influences.

An exhilarating, time-traveling journey to the solar system's strangest and most awe-inspiring volcanoes. Volcanoes are capable of acts of pyrotechnical prowess verging on magic: they spout black magma more fluid than water, create shimmering cities of glass at the bottom of the ocean and frozen lakes of lava on the moon, and can even tip entire planets over. Between lava that melts and re-forms the landscape, and noxious volcanic gases that poison the atmosphere, volcanoes have threatened life on Earth countless times in our planet's history. Yet despite their reputation for destruction, volcanoes

are inseparable from the creation of our planet. A lively and utterly fascinating guide to these geologic wonders, *Super Volcanoes* revels in the incomparable power of volcanic eruptions past and present, *Earthbound* and otherwise—and recounts the daring and sometimes death-defying careers of the scientists who study them. Science journalist and volcanologist Robin George Andrews explores how these eruptions reveal secrets about the worlds to which they belong, describing the stunning ways in which volcanoes can sculpt the sea, land, and sky, and even influence the machinery that makes or breaks the existence of life. Walking us through the mechanics of some of the most infamous eruptions on Earth, Andrews outlines what we know about how volcanoes form, erupt, and evolve, as well as what scientists are still trying to puzzle out. How can we better predict when a deadly eruption will occur—and protect communities in the danger zone? Is Earth's system of plate tectonics, unique in the solar system, the best way to forge a planet that supports life? And if life can survive and even thrive in Earth's extreme volcanic environments—superhot, superacidic, and supersaline surroundings previously thought to be completely inhospitable—where else in the universe might we find it? Traveling from Hawai'i, Yellowstone, Tanzania, and the ocean floor to the moon, Venus, and Mars, Andrews illuminates the cutting-edge discoveries and lingering scientific mysteries surrounding these phenomenal forces of nature.

Out of Their Minds

The Little Book of Cosmology

Lab Girl

The Buried History of the World's Most Contested City

Ten Discoveries That Rewrote History

Modern Physicists and Their Discoveries

Discover some of the inspirational men and women who have received Nobel Prizes in Physics, Chemistry and Medicine from 1901 to the present day, among them Marie Curie, Albert Einstein and Sir Alexander Fleming. A glimpse into the often surprising lives and sometimes accidental discoveries of a group of extraordinary scientists, this fascinating collection shows that the science you learn at school really can change the world.

Galileo's *Dialogue Concerning the Two Chief World Systems*, published in Florence in 1632, was the most proximate cause of his being brought to trial before the Inquisition. Using the dialogue form, a genre common in classical philosophical works, Galileo masterfully demonstrates the truth of the Copernican system over the Ptolemaic one, proving, for the first time, that the earth revolves around the sun. Its influence is incalculable. The *Dialogue* is not only one of the most important scientific treatises ever written, but a work of supreme clarity and accessibility, remaining as readable now as when it was first published. This edition uses the definitive text established by the University of California Press, in Stillman Drake's translation, and includes a Foreword by Albert Einstein and a new Introduction by J. L. Heilbron.

Maria Montessori (1870-1952), Italian Physician And Educationist, Born In Rome, The First Woman In Italy To Receive A Medical Degree (1894), She Founded A School For Children With Learning Disabilities (1899-1901), And Developed A System Of Education For Children Of Three To Six Based On Spontaneity Of Expression And Freedom From Restraint. The System Was Later Worked Out For Older Children, And Applied In

Montessori Schools Throughout The World. She Opened The First Montessori School For Children In The Slums Of Rome In 1907.

The Age of Wonder is a colorful and utterly absorbing history of the men and women whose discoveries and inventions at the end of the eighteenth century gave birth to the Romantic Age of Science. When young Joseph Banks stepped onto a Tahitian beach in 1769, he hoped to discover Paradise. Inspired by the scientific ferment sweeping through Britain, the botanist had sailed with Captain Cook in search of new worlds. Other voyages of discovery—astronomical, chemical, poetical, philosophical—swiftly follow in Richard Holmes's thrilling evocation of the second scientific revolution. Through the lives of William Herschel and his sister Caroline, who forever changed the public conception of the solar system; of Humphry Davy, whose near-suicidal gas experiments revolutionized chemistry; and of the great Romantic writers, from Mary Shelley to Coleridge and Keats, who were inspired by the scientific breakthroughs of their day, Holmes brings to life the era in which we first realized both the awe-inspiring and the frightening possibilities of science—an era whose consequences are with us still. **BONUS MATERIAL:** This ebook edition includes an excerpt from Richard Holmes's *Falling Upwards*.

The Discovery of the Child

Irrationality

From X-rays to Quarks

The Discovery of the Tomb of Tutankhamen

A Novel of the Discovery of Tutankhamun's Tomb

An Extraordinary New Map of the Universe Ushering

An inspired biographical picture book about a female astronomer who makes huge discoveries about the mysteries of the night sky and changed the way we look at the universe Vera Rubin was one of the astronomers who discovered and named dark matter, the thing that keeps the universe hanging together. Throughout her career she was never taken seriously as a scientist because she was one of the only female astronomers at that time, but she didn't let that stop her. She made groundbreaking and incredibly significant discoveries that scientists have only recently been able to really appreciate—and she changed the way that we look at the universe. A stunning portrait of a little-known trailblazer, *The Stuff Between the Stars* tells Vera's story and inspires the youngest readers who are just starting to look up at the stars. The present is a contest between the bright and dark sides of discovery. To avoid being torn apart by its stresses, we need to recognize the fact—and gain courage and wisdom from the past. *Age of Discovery* shows how. Now is the best moment in history to be alive, but we have never felt more anxious or divided. Human health, aggregate wealth and education are flourishing. Scientific discovery is racing forward. But the same global flows of trade, capital, people and ideas that make gains possible for some people deliver big losses to others—and make us all more vulnerable to one another. Business and science are working giant revolutions upon our societies, but our politics and institutions evolve at a much slower pace. That's why, in a moment when everyone ought to be celebrating giant global gains, many of us are

righteously angry at being left out and stressed about where we're headed. To make sense of present shocks, we need to step back and recognize: we've been here before. The first Renaissance, the time of Columbus, Copernicus, Gutenberg and others, likewise redrew all maps of the world, democratized communication and sparked a flourishing of creative achievement. But their world also grappled with the same dark side of rapid change: social division, political extremism, insecurity, pandemics and other unintended consequences of discovery. Now is the second Renaissance. We can still flourish—if we learn from the first.

A spellbinding history of the hidden world below the Holy City—a saga of biblical treasures, intrepid explorers, and political upheaval “A sweeping tale of archaeological exploits and their cultural and political consequences told with a historian’s penchant for detail and a journalist’s flair for narration.” —Washington Post In 1863, a French senator arrived in Jerusalem hoping to unearth relics dating to biblical times. Digging deep underground, he discovered an ancient grave that, he claimed, belonged to an Old Testament queen. News of his find ricocheted around the world, evoking awe and envy alike, and inspiring others to explore Jerusalem’s storied past. In the century and a half since the Frenchman broke ground, Jerusalem has drawn a global cast of fortune seekers and missionaries, archaeologists and zealots, all of them eager to extract the biblical past from beneath the city’s streets and shrines. Their efforts have had profound effects, not only on our understanding of Jerusalem’s history, but on its hotly disputed present. The quest to retrieve ancient Jewish heritage has sparked bloody riots and thwarted international peace agreements. It has served as a cudgel, a way to stake a claim to the most contested city on the planet. Today, the earth below Jerusalem remains a battleground in the struggle to control the city above. Under Jerusalem takes readers into the tombs, tunnels, and trenches of the Holy City. It brings to life the indelible characters who have investigated this subterranean landscape. With clarity and verve, acclaimed journalist Andrew Lawler reveals how their pursuit has not only defined the conflict over modern Jerusalem, but could provide a map for two peoples and three faiths to peacefully coexist.

Rudyard Kipling is the doyen of travel writers. His genius for evoking the sights, sounds and atmosphere of a place was crystallised in his fiction, in which he introduced Victorian readers to the drama and exoticism of the East. The teaming, dusty Grand Trunk Road springs to life off the pages of *Kim*, while the misty heights of imperial Simla provide an identifiable and almost tangible physical background to *Plain Tales from the Hills*. Kipling’s poetry, journalism and letters also encapsulated the spirit of the places he visited, from Egypt, India and Brazil to the United States and Southern Africa. He was fascinated by the practicalities and potential of travel, the people encountered and experiences had. At a time when tourism was in its infancy, he prophetically reflected on the effects of mass transport and the globe trotters who thronged to India. With his darting, universal mind, he was the first person to

understand the relationship between travel and globalisation. [Kipling Abroad](#) gathers together some of the most descriptive and revealing of his travel writing, which has never before been published in one volume. Introduced and edited by Andrew Lycett, author of an acclaimed biography of Kipling, it captures the range, curiosity and sheer talent of one of our best loved authors, revealing as much about Kipling himself as it does about the places he visited.

A Novel

Dialogue Concerning the Two Chief World Systems

Under Jerusalem

A Grand and Bold Thing

Traffics and Discoveries from Burma to Brazil

The End of Everything

One of The New York Times Book Review's "10 Best Books of 2021" Shortlisted for the 2021 International Booker Prize

A fictional examination of the lives of real-life scientists and thinkers whose discoveries resulted in moral consequences beyond their imagining. *When We Cease to Understand the World* is a book about the complicated links between scientific and mathematical discovery, madness, and destruction. Fritz Haber, Alexander Grothendieck, Werner Heisenberg, Erwin Schrödinger—these are some of luminaries into whose troubled lives Benjamín Labatut thrusts the reader, showing us how they grappled with the most profound questions of existence. They have strokes of unparalleled genius, alienate friends and lovers, descend into isolation and insanity. Some of their discoveries reshape human life for the better; others pave the way to chaos and unimaginable suffering. The lines are never clear. At a breakneck pace and with a wealth of disturbing detail, Labatut uses the imaginative resources of fiction to tell the stories of the scientists and mathematicians who expanded our notions of the possible.

Today's most visionary thinkers reveal the cutting-edge scientific ideas and breakthroughs you must understand. Scientific developments radically change and enlighten our understanding of the world -- whether it's advances in technology and medical research or the latest revelations of neuroscience, psychology, physics, economics, anthropology, climatology, or genetics. And yet amid the flood of information today, it's often difficult to recognize the truly revolutionary ideas that will have lasting impact. In the spirit of identifying the most significant new theories and discoveries, John Brockman, publisher of Edge.org ("The world's smartest website" -- The Guardian), asked 198 of the finest minds What do you consider the most interesting recent scientific news? What makes it important? Pulitzer Prize-winning author of *Guns, Germs, and Steel* Jared Diamond on the best way to understand complex problems \* author of *Seven Brief Lessons on Physics* Carlo Rovelli on the mystery of black holes \* Harvard psychologist Steven Pinker on the

quantification of human progress \* TED Talks curator Chris J. Anderson on the growth of the global brain \* Harvard cosmologist Lisa Randall on the true measure of breakthrough discoveries \* Nobel Prize-winning physicist Frank Wilczek on why the twenty-first century will be shaped by our mastery of the laws of matter \* philosopher Rebecca Newberger Goldstein on the underestimation of female genius \* music legend Peter Gabriel on tearing down the barriers between imagination and reality \* Princeton physicist Freeman Dyson on the surprising ability of small (and cheap) upstarts to compete with billion-dollar projects. Plus Nobel laureate John C. Mather, Sun Microsystems cofounder Bill Joy, Wired founding editor Kevin Kelly, psychologist Alison Gopnik, Genome author Matt Ridley, Harvard geneticist George Church, Why Does the World Exist? author Jim Holt, anthropologist Helen Fisher, and more.

This book provides the first complete, easy to read, up-to-date account of the fascinating discipline of archaeoastronomy, in which the relationship between ancient constructions and the sky is studied in order to gain a better understanding of the ideas of the architects of the past and of their religious and symbolic worlds. The book is divided into three sections, the first of which explores the past relations between astronomy and people, power, the afterworld, architecture, and landscape. The fundamentals of archaeoastronomy are then addressed in detail, with coverage of the celestial coordinates; the apparent motion of the Sun, Moon, stars, and planets; observation of celestial bodies at the horizon; the use of astronomical software in archaeoastronomy; and current methods for making and analyzing measurements. The final section reviews what archaeoastronomy can now tell us about the nature and purpose of such sites and structures as Stonehenge, the Pyramids of Giza, Chichen Itza, the Campus Martius, and the Valley of the Temples of Agrigento. In addition, a set of exercises is provided that can be performed using non-commercial free software, e.g., Google Earth or Stellarium, and will equip readers to conduct their own research. Readers will find the book an ideal introduction to what has become a wide-ranging multidisciplinary science.

From Jim Holt, the New York Times bestselling author of Why Does the World Exist?, comes an entertaining and accessible guide to the most profound scientific and mathematical ideas of recent centuries in *When Einstein Walked with Gödel: Excursions to the Edge of Thought*. Does time exist? What is infinity? Why do mirrors reverse left and right but not up and down? In this scintillating collection, Holt explores the human mind, the cosmos, and the thinkers who've tried to encompass the latter with the former. With his trademark clarity and humor, Holt probes the mysteries of quantum mechanics, the quest for the foundations of mathematics, and the nature of logic and truth. Along the way, he offers intimate biographical sketches of celebrated and neglected thinkers, from the physicist Emmy Noether to the computing pioneer Alan Turing and the discoverer of fractals, Benoit Mandelbrot. Holt offers a painless and playful introduction to many of our most beautiful but least understood ideas, from Einsteinian relativity to string theory, and also invites us to

consider why the greatest logician of the twentieth century believed the U.S. Constitution contained a terrible contradiction—and whether the universe truly has a future.

Discoveries: Golden Treasures of Troy

A Discovery of Witches

Including *The Starry Messenger* (1610), *Letter to the Grand Duchess Christina* (1615), and Excerpts from *Letters on Sunspots* (1613), *The Assayer* (1623)

How the Romantic Generation Discovered the Beauty and Terror of Science

Excursions to the Edge of Thought

Discoveries and Opinions of Galileo Including *The Starry Messenger* (1610), *Letters on Sunspots* (1613), *Letter to the Grand Duchess Christina* (1615) and Excerpts from *The Assayer* (1623)

Are we alone? In 1995 planet hunters discovered the first alien solar system around a star like our own Sun. Ken Croswell tells the fascinating story of this discovery and the people who made it, then explores the possibility that one day we may have the technology to travel to different solar systems and find life.

Get the science facts, not science fiction, on the cutting-edge developments that are already changing the course of our future. Every day, scientists conduct pioneering experiments with the potential to transform how we live. Yet it isn't every day you hear from the scientists themselves! Now, award-winning author Jim Al-Khalili and his team of top-notch experts explain how today's earthshaking discoveries will shape our world tomorrow—and beyond. Pull back the curtain on: genomics robotics AI the "Internet of Things" synthetic biology transhumanism interstellar travel colonization of the solar system teleportation and much more And find insight into big-picture questions such as: Will we find a cure to all diseases? The answer to climate change? And will bionics one day turn us into superheroes? The scientists in these pages are interested only in the truth—reality-based and speculation-free. The future they conjure is by turns tantalizing and sobering: There's plenty to look forward to, but also plenty to dread. And undoubtedly the best way for us to face tomorrow's greatest challenges is to learn what the future looks like—today. Praise for *What the Future Looks Like* "A collection of mind-boggling essays that are just the thing for firing up your brain cells." —*Saga Magazine* "The predictions and impacts are global . . . [and] the book contains far more fascinating information than can be covered in this review." —*Choice* "This book is filled with essays from experts offering their informed opinions on what the science and technology of today will look like in the future, from smart materials to artificial intelligence to genetic editing." —*Popular Science* "Fun is an understatement. This is a great collection to get the summer book season started." —*Forbes.com* "The focus on sincere, factual presentation of current and future possibilities by leading experts is particularly welcome in this era of fake news and anti-science rhetoric." —*Library Journal*

Directing his polemics against the pedantry of his time, Galileo, as his own popularizer, addressed his writings to contemporary laymen. His support of Copernican cosmology, against the Church's strong opposition, his development of a telescope, and his unorthodox opinions as a philosopher of science were the central concerns of his career and the subjects of four of his most important writings. Drake's introductory essay place them in their biographical and historical context.

LATE IN THE TWENTIETH CENTURY, what had been a fevered pace of discovery in astronomy for many years had slowed. The Hubble Space Telescope continued to produce an astonishing array of images, but the study of the universe was still fractured into domains: measuring the universe's expansion rate, the evolution of galaxies in the early universe, the life and death of stars, the search for extrasolar planets, the quest to understand the nature of the elusive dark matter. So little was understood, still, about so many of the most fundamental questions, foremost among them: What was the overall structure of the universe? Why had stars formed into galaxies, and galaxies into massive clusters? What was needed, thought visionary astronomer Jim Gunn, recently awarded the National Medal of Science, was a massive survey of the sky, a kind of new map of the universe that would be so rich in detail and cover such a wide swath of space, be so grand and bold, that it would allow astronomers to see the big picture in a whole new way. So was born the Sloan Digital Sky Survey, a remarkable undertaking bringing together hundreds of astronomers and launching a new era of supercharged astronomical discovery, an era of "e-science" that has taken astronomy from the lonely mountaintop observatory to the touch of your fingertips. Critically acclaimed science writer Ann Finkbeiner tells the inside story of the Sloan and how it is revolutionizing astronomy. The Sloan stitched together images of deep space taken over the course of five years, providing a remarkably detailed, three-dimensional map of a vast territory of the universe, all digitized and downloadable for easy searching on a personal computer, and available not only to professional astronomers but to the public as well. Bringing together for the first time images of many millions of galaxies—including the massive structure known as the Sloan Great Wall of galaxies, never seen before—the Sloan is allowing astronomers and armchair enthusiasts alike to watch the universe grow up, providing so many discoveries at such a fast pace that, as one astronomer said, it's like drinking out of a fire hose. They are watching galaxies forming and galaxies merging with other galaxies, seeing streams of stars swirling out from galaxies, and forming a new understanding of how the smooth soup of matter that emerged from the Big Bang evolved into the universe as we know it. Ann Finkbeiner brings the excitement and the extraordinary potential of this new era of astronomy vividly to life and allows all readers to understand how they, too, can become part of the discovery process. *A Grand and Bold Thing* is vital reading for all.

Planet Quest

How Vera Rubin Discovered Most of the Universe

Story-Lives of Great Musicians

A History of Medicine in 50 Discoveries (History in 50)

Discoveries and Opinions of Galilei

Science and Me

Bestselling author Gill Paul returns with a brilliant novel about Lady Evelyn Herbert, the woman who took the very first step into the tomb of Pharaoh Tutankhamun, and who lived in the real Downton Abbey, Highclere Castle, and the long after-effects of the Curse of Pharaohs. Lady Evelyn Herbert was the daughter of the Earl of Carnarvon, brought up in stunning Highclere Castle. Popular and pretty, she seemed destined for a prestigious marriage, but she had other ideas. Instead, she left behind the world of society balls and chaperones to travel to the Egyptian desert, where she hoped to become a lady archaeologist, working alongside her father and Howard Carter in the hunt for an undisturbed tomb. In November 1922, their dreams came true when they discovered the burial place of Tutankhamun, packed full of gold and unimaginable riches, and she was the first person to crawl inside for three

thousand years. She called it the “greatest moment” of her life—but soon afterwards everything changed, with a string of tragedies that left her world a darker, sadder place. Newspapers claimed it was “the curse of Tutankhamun,” but Howard Carter said no rational person would entertain such nonsense. Yet fifty years later, when an Egyptian academic came asking questions about what really happened in the tomb, it unleashed a new chain of events that seemed to threaten the happiness Eve had finally found.

In this New York Times bestseller and longlist nominee for the National Book Award, “our greatest living chronicler of the natural world” (The New York Times), David Quammen explains how recent discoveries in molecular biology affect our understanding of evolution and life’s history. In the mid-1970s, scientists began using DNA sequences to reexamine the history of all life. Perhaps the most startling discovery to come out of this new field—the study of life’s diversity and relatedness at the molecular level—is horizontal gene transfer (HGT), or the movement of genes across species lines. It turns out that HGT has been widespread and important; we now know that roughly eight percent of the human genome arrived sideways by viral infection—a type of HGT. In *The Tangled Tree*, “the grandest tale in biology....David Quammen presents the science—and the scientists involved—with patience, candor, and flair” (Nature). We learn about the major players, such as Carl Woese, the most important little-known biologist of the twentieth century; Lynn Margulis, the notorious maverick whose wild ideas about “mosaic” creatures proved to be true; and Tsutomu Wantanabe, who discovered that the scourge of antibiotic-resistant bacteria is a direct result of horizontal gene transfer, bringing the deep study of genome histories to bear on a global crisis in public health. “David Quammen proves to be an immensely well-informed guide to a complex story” (The Wall Street Journal). In *The Tangled Tree*, he explains how molecular studies of evolution have brought startling recognitions about the tangled tree of life—including where we humans fit upon it. Thanks to new technologies, we now have the ability to alter even our genetic composition—through sideways insertions, as nature has long been doing. “*The Tangled Tree* is a source of wonder....Quammen has written a deep and daring intellectual adventure” (The Boston Globe).

Think you need a degree in science to contribute to important scientific discoveries? Think again. All around the world, in fields ranging from astronomy to zoology, millions of everyday people are choosing to participate in the scientific process. Working in cooperation with scientists in pursuit of information, innovation, and discovery, these volunteers are following protocols, collecting and reviewing data, and sharing their observations. They are our neighbors, our in-laws, and people in the office down the hall. Their story, along with the story of the social good that can result from citizen science, has largely been untold, until now. Citizen scientists are challenging old notions about who can conduct research, where knowledge can be acquired, and even how solutions to some of our biggest societal problems might emerge. In telling their story, Cooper will inspire readers to rethink their own assumptions about the role that individuals can play in gaining scientific understanding and putting that understanding to use as stewards of our world. *Citizen Science* will be a rallying call-to-arms, and will also function as an authoritative resource for those inspired by the featured stories and message.

Book one of the New York Times-bestselling All Souls trilogy—"a wonderfully imaginative grown-up fantasy with all the magic of Harry Potter and Twilight" (People). Look for the hit TV series "A Discovery of Witches," streaming on AMC Plus, Sundance Now and Shudder. Season 2 premieres January 9, 2021! Deborah Harkness's sparkling debut, A Discovery of Witches, has brought her into the spotlight and galvanized fans around the world. In this tale of passion and obsession, Diana Bishop, a young scholar and a descendant of witches, discovers a long-lost and enchanted alchemical manuscript, Ashmole 782, deep in Oxford's Bodleian Library. Its reappearance summons a fantastical underworld, which she navigates with her leading man, vampire geneticist Matthew Clairmont. Harkness has created a universe to rival those of Anne Rice, Diana Gabaldon, and Elizabeth Kostova, and she adds a scholar's depth to this riveting tale of magic and suspense. The story continues in book two, Shadow of Night, and concludes with The Book of Life.

What the Future Looks Like

Today's Most Interesting and Important Scientific Ideas, Discoveries, and Developments

Know This

Discoveries and Opinions of Galileo

Scientists Predict the Next Great Discoveries and Reveal How Today's Breakthroughs Are Already Shaping Our World

The Tangled Tree

National Bestseller Winner of the National Book Critics Circle Award for Autobiography A New York Times Notable Book Geobiologist Hope Jahren has spent her life studying trees, flowers, seeds, and soil. Lab Girl is her revelatory treatise on plant life—but it is also a celebration of the lifelong curiosity, humility, and passion that drive every scientist. In these pages, Hope takes us back to her Minnesota childhood, where she spent hours in unfettered play in her father's college laboratory. She tells us how she found a sanctuary in science, learning to perform lab work "with both the heart and the hands." She introduces us to Bill, her brilliant, eccentric lab manager. And she extends the mantle of scientist to each one of her readers, inviting us to join her in observing and protecting our environment. Warm, luminous, compulsively readable, Lab Girl vividly demonstrates the mountains that we can move when love and work come together. Winner of the American Association for the Advancement of Science/Subaru Science Books & Film Prize for Excellence in Science Books Finalist for the PEN/E.O. Wilson Literary Science Writing Award One of the Best Books of the Year: The Washington Post, TIME.com, NPR, Slate, Entertainment Weekly, Newsday, Minneapolis Star Tribune, Kirkus Reviews An "intriguing and accessible" (Publishers Weekly) interpretation of the life of Galileo Galilei, one of history's greatest and most fascinating scientists, that sheds new light on his discoveries and how he was challenged by science deniers. "We really need this story now, because we're living through the next chapter of science denial" (Bill McKibben). Galileo's story may be more relevant today than ever before. At present, we face enormous crises—such as minimizing

the dangers of climate change—because the science behind these threats is erroneously questioned or ignored. Galileo encountered this problem 400 years ago. His discoveries, based on careful observations and ingenious experiments, contradicted conventional wisdom and the teachings of the church at the time. Consequently, in a blatant assault on freedom of thought, his books were forbidden by church authorities. Astrophysicist and bestselling author Mario Livio draws on his own scientific expertise and uses his “gifts as a great storyteller” (The Washington Post) to provide a “refreshing perspective” (Booklist) into how Galileo reached his bold new conclusions about the cosmos and the laws of nature. A freethinker who followed the evidence wherever it led him, Galileo was one of the most significant figures behind the scientific revolution. He believed that every educated person should know science as well as literature, and insisted on reaching the widest audience possible, publishing his books in Italian rather than Latin. Galileo was put on trial with his life in the balance for refusing to renounce his scientific convictions. He remains a hero and inspiration to scientists and all of those who respect science—which, as Livio reminds us in this “admirably clear and concise” (The Times, London) book, remains threatened everyday.

Retells how amateur archaeologist Heinrich Schliemann located and excavated the legendary sites of Ithaca, Troy, and Mycenae, uncovering their long hidden treasures despite hostile critics and academic controversy

A writer finds himself trapped in an isolated village where anything imagined becomes reality in this wildly inventive contemporary fantasy Hoping to write his book in quiet and seclusion, Horton Smith has returned home to Pilot Knob. Here, in the tiny village where he passed so many carefree childhood years, he is untroubled by the pressures of the big city and can freely answer the call of his muse. Of course, back in the city Horton didn't have to run from dinosaurs.

There were no cartoon hillbillies offering him moonshine, Don Quixote was content to confine himself to the pages of a book, and the Devil himself was not on Horton's tail. Something very, very unusual is going on in Pilot Knob, and Horton Smith is determined to get to the bottom of it—if his own imagination doesn't kill him first! In *Out of Their Minds*, science fiction Grand Master Clifford D. Simak changes gears, treating his readers to a delightfully satiric flight of fancy and fantasy. An award-winning author renowned for his remarkable visions of the future, Simak brings creatures and characters from humankind's collective imagination to breathtaking life in this fast-moving and unforgettable tale.

When Einstein Walked with Gödel

The Stuff Between the Stars

The Story of Inventions

A Radical New History of Life

Navigating the Risks and Rewards of Our New Renaissance

## How Ordinary People are Changing the Face of Discovery

The world's greatest archaeological finds and what they tell us about lost civilizations. Renowned archaeologist Patrick Hunt brings his top ten list of ancient archaeological discoveries to life in this concise and captivating book. The Rosetta Stone, Troy, Nineveh's Assyrian Library, King Tut's Tomb, Machu Picchu, Pompeii, the Dead Sea Scrolls, Thera, Olduvai Gorge, and the Tomb of 10,000 Warriors—Hunt reveals the fascinating stories of these amazing discoveries and explains the ways in which they added to our knowledge of human history and permanently altered our worldview. Part travel guide to the wonders of the world and part primer on ancient world history, *Ten Discoveries That Rewrote History* captures the awe and excitement of finding a lost window into ancient civilization.

Archaeoastronomy

The Hidden Life of Trees: What They Feel, How They Communicate

Galileo

Super Volcanoes: What They Reveal about Earth and the Worlds Beyond