

Albert Einstein And Relativity For Kids: His Life And Ideas With 21 Activities And Thought Experiments (For Kids Series)

An astrophysicist offers an entertaining introduction to Einstein's theories, explaining how well they have held up to rigorous testing over the years, and even describing the amazing phenomena readers would actually experience if they took a trip through a black hole.

Semi-technical account includes a review of classical physics (origin of space and time measurements, Ptolemaic and Copernican astronomy, laws of motion, inertia, more) and of Einstein's theories of relativity.

Albert Einstein rewrote the rules of physics and changed how scientists see space and time forever. Learn how a boy who struggled in school became one of history's most renowned scientists.

The theory of relativity, explained by the greatest mind of the 20th century. Albert Einstein discusses the special and general theories of relativity, and the core concepts of modern cosmology, including time dilation, the spacetime continuum, and the energy-mass relationship, in simple non-mathematical terms.

Einstein's General Theory of Relativity

The Reception of the Physicist and His Theory in China, 1917-1979

A Concise Statement

The Evolution of Physics

An Intuitive Introduction to Einstein's Ideas, and Why They Matter

A collection of insightful and thought provoking essays from one of the greatest thinkers of the twentieth century A new edition of the most definitive collection of Albert Einstein's popular writings, gathered under the supervision of Einstein himself. The selections range from his earliest days as a theoretical physicist to his death in 1955; from such subjects as relativity, nuclear war or peace, and religion and science, to human rights, economics, and government.

After completing the final version of his general theory of relativity in November 1915, Albert Einstein wrote a book about relativity for a popular audience. His intention was "to give an exact insight into the theory of relativity to those readers who, from a general scientific and philosophical point of view, are interested in the theory, but who are not conversant with the mathematical apparatus of theoretical physics." The book remains one of the most lucid explanations of the special and general theories ever written. In the early 1920s alone, it was translated into ten languages, and fifteen editions in the original German appeared over the course of Einstein's lifetime. This new edition of Einstein's celebrated book features an authoritative English translation of the text along with an introduction and a reading companion by Hanoch Gutfreund and Jürgen Renn that examines the evolution of Einstein's thinking and casts his ideas in a broader present-day context. A special chapter explores the history of and the stories behind the early foreign-language editions in light of the reception of

Read PDF Albert Einstein And Relativity For Kids: His Life And Ideas With 21 Activities And Thought Experiments (For Kids Series)

relativity in different countries. This edition also includes a survey of the introductions from those editions, covers from selected early editions, a letter from Walther Rathenau to Einstein discussing the book, and a revealing sample from Einstein's handwritten manuscript. Published on the hundredth anniversary of general relativity, this handsome edition of Einstein's famous book places the work in historical and intellectual context while providing invaluable insight into one of the greatest scientific minds of all time.

Traces the life and work of the physicist whose theory of relativity revolutionized scientific thinking. "The eternal mystery of the world is its comprehensibility ... The fact that it is comprehensible is a miracle." –Albert Einstein, 1936 Albert Einstein's universal appeal is only partially explained by his brilliant work in physics, as Andrew Robinson demonstrates in this authoritative, accessible, and richly illustrated biography. The main narrative is enriched by twelve essays by well-known scientists, scholars, and artists, including three Nobel Laureates. The book presents clearly the beautiful simplicity at the heart of Einstein's greatest discoveries, and explains how his ideas have continued to influence scientific developments such as lasers, the theory of the big bang, and "theories of everything." Einstein's life and activities outside of science are also considered, including his encounters with famous contemporaries such as Chaplin, Roosevelt, and Tagore, his love of music, and his troubled family life. The book recognizes that Einstein's striking originality was expressed in many ways, from his political and humanitarian campaigns against nuclear weapons, anti-Semitism, McCarthyism, and social injustices, to his unconventional personal appearance. Published in association with the Albert Einstein Archives at the Hebrew University of Jerusalem, the book draws on this exceptional resource of Einstein's private papers and personal photographs. This new edition, published to recognize the centenary of the publication of Einstein's General Theory of Relativity, includes an important new afterword by Diana Kormos Buchwald, the director of the Einstein Papers Project at the California Institute of Technology. The contributors are Philip Anderson, Arthur C. Clarke, I. Bernard Cohen, Freeman Dyson, Philip Glass, Stephen Hawking, Max Jammer, Diana Kormos Buchwald, João Magueijo, Joseph Rotblat, Robert Schulmann, and Steven Weinberg.

China and Albert Einstein

How Einstein's Theory of Gravity Was Lost and Found Again
Einstein

Ingenious Physicist and Father of Relativity

Emergence (1905) and Early Interpretation (1905–1911)

Even the youngest science enthusiasts know the name "Einstein." To them, it represents intelligence and ingenuity. But they may not know much about Albert Einstein as a man and why his fame reached such great heights. In this comprehensive biography, which

Read PDF Albert Einstein And Relativity For Kids: His Life And Ideas With 21 Activities And Thought Experiments (For Kids Series)

draws on new research and personal documents, accessible text tells the fascinating story of Einstein's life, including his early years in Germany, his achievements that led to the Nobel Prize, and his role in the development of the atomic bomb. Plentiful photographs, explanatory diagrams, and illuminating sidebars add to the reader's experience, helping to reveal the person and the genius behind the name.

Albert Einstein is the unquestioned founder of modern physics. His theory of relativity is the most important scientific idea of the modern era. In this book Einstein explains, using the minimum of mathematical terms, the basic ideas and principles of the theory which has shaped the world we live in today. Unsurpassed by any subsequent books on relativity, this remains the most popular and useful exposition of Einstein's immense contribution to human knowledge. In this work Einstein intended, as far as possible, to give an exact insight into the theory of relativity to those readers who, from a general and scientific philosophical point of view, are interested in the theory, but who are not conversant with the mathematical apparatus of theoretical physics. The theory of relativity enriched physics and astronomy during the 20th century. (Relativity: The Special and the General Theory by Albert Einstein, 9789380914220)

In 1921, five years after the appearance of his comprehensive paper on general relativity and twelve years before he left Europe permanently to join the Institute for Advanced Study, Albert Einstein visited Princeton University, where he delivered the Stafford Little Lectures for that year. These four lectures constituted an overview of his then-controversial theory of relativity. Princeton University Press made the lectures available under the title *The Meaning of Relativity*, the first book by Einstein to be produced by an American publisher. As subsequent editions were brought out by the Press, Einstein included new material amplifying the theory. A revised version of the appendix "Relativistic Theory of the Non-Symmetric Field," added to the posthumous edition of 1956, was Einstein's last scientific paper.

An introduction to the life and scientific achievements of Einstein includes coverage of such topics as his successful proof of the existence of atoms and his contributions to launching quantum mechanics, in a volume complemented by educational activity suggestions and science projects. Original.

Genius of the Theory of Relativity

Albert Einstein's Theory of Relativity

What Is Relativity?

A Popular Exposition (Classic Reprint)

The Meaning of Relativity

Several distinguished scientists explain and expand upon the theory that revolutionized scientific theory, defining gravity and the meaning of relativity and assessing the theory's impact on various

scientific disciplines

This is the first extensive study in English or Chinese of China's reception of the celebrated physicist and his theory of relativity. In a series of biographical studies of Chinese physicists, Hu describes the Chinese assimilation of relativity and explains how Chinese physicists offered arguments and theories of their own. Hu's account concludes with the troubling story of the fate of foreign ideas such as Einstein's in the Chinese Cultural Revolution (1966-1976), when the theory of relativity was denigrated along with Einstein's ideas on democracy and world peace.

This tribute to Einstein's genius opens with a brief essay by Hanoch Gutfreund, a chronology of Einstein's life, a selection of quotes by Einstein, and, to introduce the manuscript, a detailed description of the manuscript, its contents, publication history, and provenance.

Understand how Einstein came to write the most famous equation in history and see how the world was changed forever. Broken into 10 bite-sized chapters, this step-by-step journey through Einstein's mind takes his original manuscripts and makes them accessible to budding scientists everywhere.

Ideas And Opinions

Relativity, the Special and General Theory

Albert Einstein and Relativity for Kids

Einstein's Theory of Spacetime, Time Dilation, Gravity, and Cosmology

Albert Einstein and the Theory of Relativity

"Another standout in a uniformly stellar series." —Kirkus Reviews, starred review "[An] engrossing and remarkably accessible biography." —The Horn Book *Albert Einstein. His name has become a synonym for genius. His wild case of bedhead and playful sense of humor made him a media superstar—the first, maybe only, scientist-celebrity. He wasn't much for lab work; in fact he had a tendency to blow up experiments. What he liked to do was think, not in words but in "thought experiments". What was the result of all his thinking? Nothing less than the overturning of Newtonian physics. Once again, Kathleen Krull delivers a witty and astute look at one of the true Giants of Science and the turbulent times in which he lived.*

General relativity or the general theory of relativity is the geometric theory of gravitation published by Albert Einstein in 1915. It is the current description of gravitation in modern physics. General relativity generalises special relativity and Newton's law of universal gravitation, providing a unified description of gravity as a geometric property of space and time, or spacetime. In particular, the curvature of spacetime is directly related to the four-momentum (mass-energy and linear momentum) of whatever matter and radiation are present. The relation is specified by the Einstein field equations, a

Read PDF Albert Einstein And Relativity For Kids: His Life And Ideas With 21 Activities And Thought Experiments (For Kids Series)

system of partial differential equations. Einstein's theory has important astrophysical implications. For example, it implies the existence of black holes—regions of space in which space and time are distorted in such a way that nothing, not even light, can escape—as an end-state for massive stars. There is evidence that such stellar black holes as well as more massive varieties of black hole are responsible for the intense radiation emitted by certain types of astronomical objects such as active galactic nuclei or microquasars.

Relativity Routledge

A handsome annotated edition of Einstein's celebrated book on relativity After completing the final version of his general theory of relativity in November 1915, Albert Einstein wrote Relativity. Intended for a popular audience, the book remains one of the most lucid explanations of the special and general theories ever written. This edition of Einstein's celebrated book features an authoritative English translation of the text along with commentaries by Hanoach Gutfreund and Jürgen Renn that examine the evolution of Einstein's thinking and cast his ideas in a modern context. Providing invaluable insight into one of the greatest scientific minds of all time, the book also includes a unique survey of the introductions from past editions, covers from selected early editions, a letter from Walther Rathenau to Einstein discussing the book, and a revealing sample from Einstein's original handwritten manuscript.

Relativity: The Special and General Theory

Sidelights on Relativity (Illustrated Edition)

Including the Relativistic Theory of the Non-Symmetric Field - Fifth Edition

Relativity Rock Star

The Curious History of Relativity

This biography details Albert Einstein's life and his developments as one of history's most amazing scientists. The book details his early life and struggles in Germany.

A collection of quotations from Einstein's nonscientific writing reveals the man's humor, compassion, sensitivity, and wisdom and illuminates the great physicist's complex personality

Best known for his general theory of relativity and the famous equation linking mass and energy, $E = mc^2$, Albert Einstein had a lasting impact on the world of science, the extent of which is illuminated—along with his fascinating life and unique personality—in this lively history. In addition to learning all about Einstein's important contributions to science, from proving the existence and size of atoms and launching the field of quantum mechanics to creating models of the universe that led to the discovery of black holes and the big bang theory, young physicists will participate in activities and thought experiments to bring his theories and ideas to life. Such activities include using dominoes to model a nuclear chain reaction, replicating the expanding universe in a microwave oven, creating blue skies and red sunsets in a soda

bottle, and calculating the speed of light using a melted chocolate bar. Suggestions for further study, a time line, and sidebars on the work of other physicists of the day make this an incredibly accessible resource for inquisitive children. Two unabridged addresses summarizing aspects of Einstein's Special and General Theories of Relativity comprise this succinct volume. The first, *Ether and Relativity*, was delivered in 1920 and examines the properties demanded of the ether of space by the theory of relativity. *Geometry and Experience*, delivered the following year, describes the limits within which the Euclidean system can be held to be approximately true in relation to the concept of a finite universe. Written clearly and concisely, these lectures are a fascinating read for both scientist and layman. Many of the earliest books, particularly those dating back to the 1900s and before, are now extremely scarce and increasingly expensive. We are republishing these classic works in affordable, high quality, modern editions, using the original text and artwork.

Subtle is the Lord

The Science and the Life of Albert Einstein

The Principle of Relativity

The Special and General Theory

A Hundred Years of Relativity

This book introduces the general theory of relativity and includes applications to cosmology. The book provides a thorough introduction to tensor calculus and curved manifolds. After the necessary mathematical tools are introduced, the authors offer a thorough presentation of the theory of relativity. Also included are some advanced topics not previously covered by textbooks, including Kaluza-Klein theory, Israel's formalism and branes. Anisotropic cosmological models are also included. The book contains a large number of new exercises and examples, each with separate headings. The reader will benefit from an updated introduction to general relativity including the most recent developments in cosmology.

*Black holes may obliterate most things that come near them, but they saved the theory of general relativity. Einstein's theory was quickly accepted as the true theory of gravity after its publication in 1915, but soon took a back seat in physics to quantum mechanics and languished for decades on the blackboards of mathematicians. Not until the existence of black holes by Stephen Hawking and Roger Penrose in the 1960s, after Einstein's death, was the theory revived. Almost one hundred years after general relativity replaced Newton's theory of gravitation, *The Curious History of Relativity* tells the story of both events surrounding general relativity and the techniques employed by Einstein and the relativists to construct, develop, and understand his almost impenetrable theory. Jean Eisenstaedt, one of the world's leading experts on the subject, also discusses the theory's place in the evolution of twentieth-century physics. He describes the main stages in the development of general relativity: its beginnings, its strange crossing of the desert during Einstein's lifetime while under heated criticism, and its new life from the 1960s on, when it became vital to the understanding of black holes and the observation of exotic objects, and, eventually, to the discovery of the accelerating universe. We witness Einstein's construction of his theory, as well as the work of his fascinated, discouraged, and enthusiastic colleagues--physicists, mathematicians, and astronomers. Written with flair, *The Curious History of Relativity* poses--and answers--the difficult questions raised by Einstein's magnificent intellectual feat.*

Eleven papers that forged the general and special theories of relativity include seven papers by Einstein, two by Lorentz, and one each by Minkowski and Weyl.

Read PDF Albert Einstein And Relativity For Kids: His Life And Ideas With 21 Activities And Thought Experiments (For Kids Series)

1923 edition.

Albert Einstein's restless intelligence drove him to ponder the biggest topics the universe has to offer: light, time, mass, energy, and more. His conclusions changed the way people thought about the laws of physics. But first, he had to pass his university entrance exams. This graphic biography traces Einstein's path from his home country of Germany to his studies in Switzerland to his time in the United States. It also follows his life as an international scientific celebrity and his refusal to stay silent in the face of anti-Semitism.

Words That Changed the World

Einstein For Dummies

The Special and the General Theory - 100th Anniversary Edition

Einstein's Theory of Relativity

Einstein's 1912 Manuscript on the Special Theory of Relativity

With his general theory of relativity, Albert Einstein is the symbol of genius. Being honored with the Nobel Prize in physics made him famous and firmed-up his reputation as a genius. Though Albert Einstein is remembered mostly as being a scientist, he was also concerned with helping people. During World War II, he assisted many Jews fleeing the Nazis. After the war, the people of Israel asked him to be their president. Einstein declined; he still had unanswered scientific questions to solve. Today, scientists are still hard at work trying to solve some of Einstein's questions.

Genius demystified, the Dummies way! In 1905, Albert Einstein revolutionized modern physics with his theory of relativity. He went on to become a twentieth-century icon—a man whose name and face are synonymous with "genius." Now, at last, ordinary readers can explore Einstein's life and work in this new For Dummies guide. Physicist Carlos Calle chronicles Einstein's career and explains his work—including the theories of special and general relativity—in language that anyone can understand. He shows how Einstein's discoveries affected everything from the development of the atom bomb to the theory of quantum mechanics. He sheds light on Einstein's personal life and beliefs, including his views on religion and politics. And he shows how Einstein's work continues to affect our world today, from nuclear power to space travel to artificial intelligence.

Albert Einstein, a Nobel laureate, has changed the world with his research and theories. He is regarded as the founder of modern physics. Besides 'Relativity', he worked on Photoelectric effect, Brownian motion, Special relativity, and Mass-Energy equivalence ($E=mc^2$). They reformed the views on time, space and matter. Allert Einstein developed the general theory of 'Relativity'. He published 'Relativity: The Special and the General Theory' in German. Its first English translation was published in 1920. The book deals with the special theory of relativity, the general theory of relativity, and the considerations on the universe as a whole The book gives an exact insight into the theory of Relativity. It covers, the system of Co-ordinates; The Lorentz Transformation; The experiment of Fizeau; Minkowski's four dimensional space; The Gravitational Field; Gaussian Co-ordinates; The structure of space, and lot many other scientific concepts thus will be highly beneficial to the Readers. A must have book for everyone related to modern physics.

An analysis of one of the three great papers Einstein published in 1905, each of which was to alter forever the field it dealt with. The second of these papers, "On the Electrodynamics of Moving Bodies", established what Einstein sometimes referred to as the "so-called Theory of Relativity". Miller uses the paper to provide a window on the intense intellectual struggles of physicists in the first decade of the 20th century: the interplay between physical theory and empirical data; the fiercely held notions that could not be articulated clearly or

Read PDF Albert Einstein And Relativity For Kids: His Life And Ideas With 21 Activities And Thought Experiments (For Kids Series)

verified experimentally; the great intellectual investment in existing theories, data, and interpretations - and associated intellectual inertia - and the drive to the long-sought-for unification of the sciences. Since its original publication, this book has become a standard reference and sourcebook for the history and philosophy of science; however, it can equally well serve as a text on twentieth-century philosophy.

*The Special and the General Theory
Albert Einstein and Relativity*

*His Life and Ideas with 21 Activities and Thought Experiments
With Modern Applications in Cosmology*

Time's 'Man of the Century', Albert Einstein is the unquestioned founder of modern physics. His theory of relativity is the most important scientific idea of the modern era. In this short book Einstein explains, using the minimum of mathematical terms, the basic ideas and principles of the theory which has shaped the world we live in today. Unsurpassed by any subsequent books on relativity, this remains the most popular and useful exposition of Einstein's immense contribution to human knowledge.

The work of a master, Relativity, the Special and the General Theory: A Popular Exposition, Volume One is Albert Einstein's own attempt to present his theories of relativity to non-physicists. The book is composed of three parts. Part one presents the Special Theory of Relativity and the intimate connection of space and time (spacetime, or "ST"). Part two highlights the General Theory of Relativity, in which Einstein argues that space and time are not absolute and are modified by gravitational forces. In part three, Einstein applies these theories to a consideration of the universe as a whole, with specific discussion about Newton's Law and a sketch of the structure of space according to the General Theory of Relativity. The book frequently refers to an analogy involving a man on a train and a man on an embankment, to which Einstein applies his theories to present varying outcomes. These analogies greatly enhance the layperson's understanding. Einstein's stated goal in Relativity, the Special and the General Theory was to "present the ideas in the simplest and most intelligible form," and in this regard he was largely successful. One does not need to have an understanding of the mathematical principles of theoretical physics in order to read this book. However, that is not to say this book is not a challenging read. The layman will likely find some of the passages quite dense, and the mathematical calculations that are presented may be difficult to follow. While this will not greatly impact one's surface level understanding of Einstein's theories, one's ability to fully grasp the theories presented will depend

on their scientific and mathematical background. Relativity, the Special and the General Theory is highly recommended. It is an important work by one of the world's great thinkers, and it presents complex theories in an accessible manner. This book is a worthy addition to anybody's library. About the Publisher Forgotten Books publishes hundreds of thousands of rare and classic books. Find more at www.forgottenbooks.com This book is a reproduction of an important historical work. Forgotten Books uses state-of-the-art technology to digitally reconstruct the work, preserving the original format whilst repairing imperfections present in the aged copy. In rare cases, an imperfection in the original, such as a blemish or missing page, may be replicated in our edition. We do, however, repair the vast majority of imperfections successfully; any imperfections that remain are intentionally left to preserve the state of such historical works.

Subtle is the Lord is widely recognized as the definitive scientific biography of Albert Einstein. The late Abraham Pais was a distinguished physicist turned historian who knew Einstein both professionally and personally in the last years of his life. His biography combines a profound understanding of Einstein's work with personal recollections from their years of acquaintance, illuminating the man through the development of his scientific thought. Pais examines the formulation of Einstein's theories of relativity, his work on Brownian motion, and his response to quantum theory with authority and precision. The profound transformation Einstein's ideas effected on the physics of the turn of the century is here laid out for the serious reader. Pais also fills many gaps in what we know of Einstein's life - his interest in philosophy, his concern with Jewish destiny, and his opinions of great figures from Newton to Freud. This remarkable volume, written by a physicist who mingled in Einstein's scientific circle, forms a timeless and classic biography of the towering figure of twentieth-century science.

The Einstein Theory of Relativity

New Glimpses from His Archives

Albert Einstein's Theory of General Relativity

Albert Einstein

Albert Einstein, the Human Side