

KEY STAGE 4 POTENTIAL HIGH ACHIEVERS READING LIST

For

PHYSICS

STEPHEN HAWKING: A GRAPHIC GUIDE – JP MCEVOY & OSCAR ZARATE
ISBN: 9781848310940

This book introduces Hawking in a concise, easy to read form. It's a cross between a popular science book and a graphic novel, so it's really easy to visualise the concepts. This book is really good as a simple primer to Hawking's work, so I'd recommend reading it before tackling A Brief History of Time. It doesn't go into as much detail, but it gives you the general idea of Hawking's research, so when you come to read it in Hawking's own words it seems less daunting

BILL BRYSON: A SHORT HISTORY OF NEARLY EVERYTHING
ISBN – 0552997048 - A modern classic.

Popular science writing at its best. A Short History of Nearly Everything, Bill Bryson's quest to find out everything that has happened from the Big Bang to the rise of civilization – how we got from there, being nothing at all, to here, being us. Hopefully by reading it you will gain an awe-inspiring feeling of how everything in the universe is connected by some fundamental laws.

EDWIN A. ABBOT: FLATLAND
ISBN: 9780486272634

A clever and humorous mathematical essay, Flatland tells the story of a square living in a two-dimensional land. The challenges of living in two dimensions mean the society has developed strange customs that our protagonist describes. In a dream, he is transported to Lineland, where inhabitants exist in only one dimension. He cannot fathom how the citizens of Lineland cannot comprehend the second dimension. Once he returns to Flatland, however, he is baffled to be visited by a mysterious visitor who calls himself a Sphere...

HOW TO BUILD A UNIVERSE, BRIAN COX AND ROBIN INCE
ISBN: 0008276323

From dark matter to consciousness via neutrinos and earthworms, Professor Brian Cox and Robin Ince muse on multifaceted subjects involved in building a universe, with pearls of wisdom from leading scientists and comedians peppered throughout. Covering billions of concepts and conundrums, they tackle everything from the Big Bang to parallel universes, fierce creatures to extra-terrestrial life, brain science to artificial intelligence. How to Build a Universe is an illuminating and inspirational celebration of science – sometimes silly, sometimes astounding and very occasionally facetious.