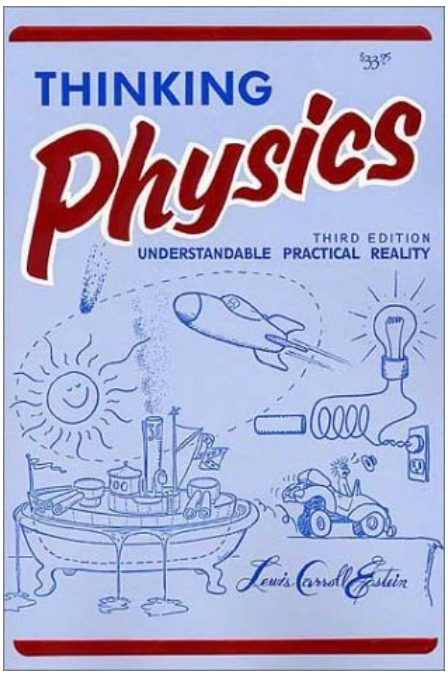

Thinking Physics: Understandable Practical Reality

Lewis Carroll Epstein (Illustrations)

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Thinking Physics: Understandable Practical Reality Lewis Carroll Epstein (Illustrations)
Lewis Carroll Epstein explains deep ideas in physics in an easy-to-understand way. *Thinking Physics* is a perfect beginner's guide to an amazingly wide range of physics-related questions. The book targets topics that science teachers and students spend time wondering about, like wing lift. Epstein elucidates the familiar but misunderstood — such as how tides work — along with more obscure but fascinating phenomena like the "Bernoulli sub" and the "artificial aurora" created by hydrogen bombs. Broken into many short sections and peppered with Epstein's own playful hand-drawn illustrations, the book does not simply give the right answer: It also goes into the answers that seem right but are wrong and shows why they are wrong — a rarity in science books. *Thinking Physics* is a rigorously correct, lighthearted, and cleverly designed Q and A book for physicists of all ages.

Thinking Physics: Understandable Practical Reality Details

Date	:	Published September 5th 2002 by Insight Press (first published April 1st 1989)
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Genre	:	Science, Physics, Nonfiction, Reference, Education

From Reader Review Thinking Physics: Understandable Practical Reality for online ebook

Alex Rajala says

My edition has a different subtitle, "Practical Lessons in Critical Thinking". Either way, Epstein has a gift to make the physical world understandable. Don't be scared off by the topic; each page is a little story of its own, and there are cartoons! The format presents an interesting fact situation and tests the reader's sense of what would happen. It reminds me of good mystery novels, where all the facts are in front of the reader yet the conclusion often remains for the ace detective to reveal. This is one of the best science books I have read.

Dane Bell says

Overall great. This book is just an intuitive overview of various areas of physics, such as momentum, light, and particles, given through virtually math-free multiple-choice questions with thorough explanations of the answers. If you read it, I recommend you follow the author's advice and try to have both an answer in mind and an explanation for why you think it's right before reading the explanation. Otherwise, it's too easy to let hindsight bias tell you you already knew the answer when you really didn't.

The parts I already had a firm grasp on were entertaining and made me think about them a little differently. The parts I didn't have a good intuitive understanding of, e.g. transfer of kinetic energy, the trade-off of time and speed, etc., it helped way more than the lists of equations you usually see. I wish I'd known about this book and read it when I was in high school. As good as it was, I admit there were some parts I read and reread and thought about and then reread again and still didn't get.

Konrad Seifert says

I came to hate physics in school and it had been haunting me once I realised how crucial it is to understand reality. This book is a very accessible and fun introduction to physics. Even for non-technical/non-quantitative people. Easy to read short bits whenever you feel like continuing with the exercises. Never lets you feel stupid. Very concrete and well-illustrated examples.

Jared says

Awesome book! Packed full of questions that intrigue the mind and are well-explained without the use of mathematics (or very little). Even for a physics grad, he explains things in ways that are very fundamental and poses questions that make you think about things from a different perspective on a very fundamental level. This book will sharpen your critical thinking skills and give you valuable physical insights into the world we live in. Everyone should own this book!

Ghada says

I picked up this book in my first year of undergraduate physics and loved it. Post-graduation and I still feel the same way.

It is a fun book full of practical yet out-of-the box physics MCQ type mini challenges. The humorous writing style makes it easy to comprehend different (and sometimes complex) physics concepts. It is suitable for anybody who is interested in physics, and does not require an aptitude in mathematics to understand the solutions - in fact, there was barely any math in it at all!

I consider this book to be one of those essential and timeless “fun” physics books that should be on the shelf of physics students and teachers. Buy it! Trust me, you won’t regret it!

Ur Salem says

WHAT AN IDIOT "SCIENTIST" !!!!!
1. check page 81, jogging !! The author has no idea what he is talking about; and he answers falsely on the preposterous thought-experiment model he himself has introduced!!!!!!!!!!
2. oh dear Lord! He cannot even differentiate between wave propagation direction and field polarization on p.469 !!!!!!!!

Pvw says

Without using mathematical formulas, Epstein and Hewitt explain fundamental concepts of physics. They do so in a question-answer structure and encourage the reader to ponder the problem intensely, before checking the solution. Generally, each page contains one question and the answer on the back once you flip it.

Illustrated with simple but clarifying drawings, the book looks a lot simpler than it actually is. In fact, many solutions are surprisingly counter-intuitive and certainly not easy. But that is what the authors want to teach: to think rationally, like a physicist, instead of following false intuitions or common misconceptions.

This is the book you would want to have read at fourteen. But believe me, even at a later age it is challenging and entertaining!

Paul says

A question-and-answer introduction to physical phenomena: mechanics, fluids, electromagnetism, relativity, and light. Enjoyable but a bit uneven, too much time is spent on the earlier mechanics stuff.

Charlotte says

I started reading this book in September 2010 and haven't got around to finishing it. I have a bad habit of doing that with books.

Phillias says

superb. good intro with material aplenty to grok any topic .

Ushan says

A very good conceptual overview of elementary physics with many clear explanations of why, for example, a fluorescent light bulb is more efficient than an incandescent one (the same reason striking a bell produces a clear note, but striking a box packed with bells doesn't). My wife's son wanted some book about "mechanics", and I thought this is as good as anything. Like Paul Hewitt, the author of a much more expensive book on conceptual physics, Lew Epstein teaches at the City College of San Francisco; in the afterword he rants about politicians who waste taxpayers' money, tells who is and who is not a good Jew, and reproduces his letters to Mickey Kantor (whose name he misspells) and Rep. Nancy Pelosi about South Koreans pirating his book.

Omar says

Had some fun reading this, although to the lay-minded person some of the answers will not make sense...Like the 3 bergs question...lol

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Chris says

This is an exceptional book for learning and teaching physics. It makes learning physics fun.
The book introduces the material of a first year course in high-school but makes it accessible for self-learning in the form of questions with cartoons which stimulate thought followed by explanations.

Andreas Gkaston says

Really good and helpful book . Helped me with my exams

Eryk Banatt says

A bunch of physics intuition building questions. Would be more effective to read through with an SRS open next to me, plan on rereading it soonish

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