

# **The People's Physics Book**

SI edition 2009

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Horsehead Nebula image credit to NOAO/AURA/NSF

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“Each discovery, each advance, each increase in the sum of human riches, owes its being to the physical and mental travail of the past and the present. By what right then can any one whatever appropriate the least morsel of this immense whole and say – This is mine, not yours?”

– Peter Kropotkin (1842 – 1921)

“Wisdom is not a product of schooling but of the life-long attempt to acquire it.”

– Albert Einstein (1879 – 1955)

“To think out a problem is not unlike drawing a caricature. You have to exaggerate the salient point and leave out that which is not typical.”

– Eric Hoffer (1902 – 1983)

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## The Big Idea

The intent of the authors is to produce an inexpensive alternative textbook for high school and college physics students and teachers. Copies of the source documents are freely available for download at our website. You may ask a print or photocopy shop to print and bind the book at your own cost. You may sell the book to students if the following conditions are met: (i) you have written us and received permission to do so; (ii) you will use the book for educational purposes only; (iii) you will not sell the book for any profit, but only to recoup the cost of printing and distributing; and (iv) you will consider acting as a contributor to the project. Our vision is of a physics teacher cooperative that produces excellent work at little or no cost.

## How to Use This Book

This book is intended to be used as one small part of a multifaceted strategy to teach physics conceptually and mathematically. It is intended as a reference guide and problem text that students can carry to and from class with ease. Adequate space is included to allow students to take notes and work problems within the text. Many students will need a more in-depth textbook for reading and sample problems: for this we suggest an in-class library that includes standard texts (Hewitt's *Conceptual Physics* comes immediately to mind) as well as current science magazines and articles. This textbook does not attempt to replace the important work that students and teachers do together, in the classroom.

## Textbook Website

<http://www.siprep.org/science/physics/PPB.cfm>

## How to Print this Book on Your Own

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- The book can be printed very cheaply at a copy store. In the past we have used 20# standard white paper in a coil bind with clear vinyl pages on the front and back. Only the first page of the book (the cover) is in color; the rest are in black & white. The cost per unit for 200 units should be close to \$10-\$15. This produces a light flexible book students can write in and carry to class. Alternatively, the text can be bound in a 3-ring binder so that marked work & projects can be added throughout the year.
- If you will be selling this book from your campus bookstore, be sure that the printer does not charge sales tax. You will need to get a copy of your seller's permit for this.
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