## Contents

To th	ne Reader don't fix it. I have maximapplies to books as	xi
1	Force and Motion	1
2	Newton's Laws of Motion	13
3	The Conservation of Momentum and Energy	24
4	Gravity Gravity	41
5	Atoms and Molecules	51
6	Solids So	64
7	Liquids and Gases	71
8	Temperature and Heat	84
9	Change of State and Transfer of Heat	94
10	Wave Motion	103
11	Sound king a course that uses a nonmathematical, con	113
12	Diffraction, Interference, and Music	123
13	Static Electricity	138
14	Electrical Current	149
15	Magnetism and Magnetic Effects of Currents	164
16	Electrical Induction	176
17	Electromagnetic Waves	189

ix

18 Light: Wave or Particle?	197
19 The Quantum Nature of Light	212
20 Reflection, Refraction, and Dispersion	231
21 Lenses and Instruments	249
22 Light as a Wave	270
23 Color Tabas A set of	282
Appendix I Scientific Notation: Powers of Ten	289
Appendix II The Metric System	293
3 The Conservation of Momentum and Energy	295
8 Temperature and Heat	
· 9 Change of State and Transfer of Heat	