

Contents

<i>Acknowledgments</i>	v
Section A History and Philosophy: Overview	1
A1. Pre-Hellenic Science	3
A2. Hellenic Science	9
A3. China and Early Science	15
A4. Islamic Science	20
A5. Christianity and Science	28
A6. Inductive Logic, “Works,” and Francis Bacon	34
A7. Deductive Logic, Maths, and René Descartes	39
A8. The Scientific Revolution	44
A9. The Church and Science	53
A10. Falsifiability: Karl Popper	60
A11. Paradigm: Thomas Kuhn	65
A12. Two Cultures: C.P. Snow	71
A13. Emergence	75
Section B Physical Sciences: Overview	81
B1. Engineering	86
B2. Mathematics	92

B3.	Astronomy	100
B4.	Mechanics	109
B5.	Alchemy	115
B6.	Phlogiston	121
B7.	Periodic Table	126
B8.	Electricity, Magnetism, and Optics	133
B9.	Thermodynamics	141
B10.	Geology	148
Section C Biology: Overview		155
C1.	Medicine	157
C2.	Anatomy	162
C3.	Physiology	168
C4.	Cell Biology	180
C5.	Embryology	185
C6.	Microbiology	192
C7.	Pharmacology	202
C8.	Biochemistry	208
C9.	Neurobiology	213
C10.	Botany	219
C11.	Genetics	226
C12.	Paleontology	234
C13.	Systematics	242
C14.	Evolution	250
C15.	Race	258

C16.	Information	270
C17.	Origin of Life	277
Section D Society and Science: Overview		285
D1.	Integrity	287
D2.	Consent	298
D3.	Faith, Intelligent Design	310
D4.	Art	317
D5.	Global Warming	325
D6.	Free Will	330
<i>Author Index</i>		339
<i>Subject Index</i>		347