

Brief Contents*

1 INTRODUCTION TO BIOLOGY

- | | |
|--|----|
| 1 Understanding Life: A Crucial Responsibility | 2 |
| 2 Science and Society | 19 |

2 ORGANISMS AND ECOLOGY

- | | |
|---|-----|
| 3 Environmental and Biological Diversity | 32 |
| 4 Energy and Nutrients in Ecosystems | 63 |
| 5 Population Ecology | 85 |
| 6 Community Ecology | 100 |
| 7 Humanity and the Biosphere: A Dynamic Balance | 118 |

3 EVOLUTION AND MENDELIAN GENETICS

- | | |
|--|-----|
| 8 Darwin's Dilemma: The Birth of Evolutionary Theory | 148 |
| 9 Continuity of Life: Cellular Reproduction | 174 |
| 10 Genetics: The Science of Inheritance | 189 |
| 11 Human Genetics | 217 |
| 12 Darwinian Theory Evolves | 241 |
| 13 Evolution of Species | 259 |

4 MOLECULES OF LIFE

- | | |
|---|-----|
| 14 The Molecules of Life | 276 |
| 15 Macromolecules | 293 |
| 16 Cell Organization | 312 |
| 17 Chemical Reactions and Energy | 343 |
| 18 Cells and Energy | 357 |
| 19 Photosynthesis | 379 |
| 20 Molecules and Genes | 397 |
| 21 Biotechnology and Molecular Medicine | 431 |
| 22 Molecular Evolution | 455 |

*NOTE: Because *Core Concepts* is derived from the complete, hardback version of *Biology: Discovering Life*, Second Edition, it may contain some chapter cross-references to chapters outside of the volume.