

ABOUT THE COVER

Wheels and circles have been used to represent the powerful elements of life since ancient times. Genetics provides the central paradigm for the study of life processes today, so in the cover illustration some of the symbols and themes of genetics have been incorporated into a wheel of life. Mendel's famous 1:2:1 ratio forms the hub, surrounded by the chemical building blocks of DNA, the nucleotides. The eight large spiral panels depict some of the organisms that form the focus of genetic analysis (*clockwise from top*): zebrafish, fruit flies, *Arabidopsis*, mice, *Neurospora*, yeast, humans, and nematodes. The reiterative stages of the cell cycle envelop these panels. A typical genomic map surrounds the dividing cells. The next ring shows well-known genetic logos: pedigrees and crossover and exon diagrams. Enclosing all is the master molecule of life, the DNA double helix, shown as a circle as in a bacterial or plasmid chromosome. (Cover illustration by Roberto Osti.)

MEDIA AND SUPPLEMENTS FOR STUDENTS

Modern Genetics Online: www.whfreeman.com/mga

Exploring Genomes: Web-Based Bioinformatics Tutorials by Paul G. Young of Queen's University. These 10 interactive tutorials teach students to use the vast genomic resources of the Web site of the National Center for Biotechnology Information. As a basis for these tutorials, Young draws from relevant material in the textbook, showing students how to use these bioinformatic resources as well as how to see the potential for their application in modern genetic analysis. For ease of use, these tutorials can be completed independently of the chapters in which they are located.

Step-Through and Continuous-Play FLASH™ Animations. 45 animations conceived by Tony Griffiths. Each figure that has a related animation is tabbed for ready reference with this media icon . See the list inside the front cover for descriptions of each animation and where each is connected to the text. These are also available on a student CD-ROM.

Interactive Unpacking the Problem by Craig Berezowsky, University of British Columbia. As with the Unpacking the Problem exercises in the text, each series of questions steps students through the thought processes needed to solve a problem. This Web-based and interactive version of Unpacking the Problem, indicated by an  next to one of the problems at the end of each chapter, features immediate feedback and grading functions.

Online Sample Tests. In addition to practicing knowledge through the Interactive Unpacking the Problem set of exercises, students can also test their fundamental understanding of key concepts and experiments through these online questions. All questions were chosen and often written by the textbook and test bank author teams to ensure the questions cover what is core to each chapter. Questions are also keyed to the text so that students can easily review material needed for understanding.

AVAILABLE IN PRINT

The Human Genome published by NATURE . From the frontline of science reporting, and with a foreword by James Watson, here is the one book every student of genetics needs to understand—and to appreciate—one of the great revolutions in science. *The Human Genome* is the first comprehensive report on the Human Genome Project that combines essential background information, clear explanations, and expert analysis. Additionally, this invaluable resource evaluates the impact on science, medicine, and society—both opportunities and risks.

Solutions Manual, by William Fixsen, Harvard University, 0-7167-4703-0. Contains worked-out solutions to all the problems in the textbook, including the Unpacking the Problem exercises.



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