

Preface

Introductory textbooks are written to provide a foundation for successful learning. In addition to the textbook, students also make use of supplementary learning materials associated with their text, typically including websites and study guides. In our experience, a study guide can be a wonderful asset to students, helping them assess their progress and move to the all-important stage of thinking critically about the material they are learning. Unfortunately, it is also our experience that study guides are sometimes created as a hurried afterthought—simply a repackaging of the text material, along with a series of multiple-choice questions, to determine if biological facts and principles have been learned.

We wanted to do something different—and something far better. We realized that it would be helpful to do more than just review the material found in the textbook. We also wanted to put together guidelines for how to study biology, how to write in biology, and how to understand why biological experiments underpin everything the student learns. Consequently, Part I of the book, unique among study guides, serves as a “survival guide” for your biology course. Part II subsequently delves into the actual material presented in *Biological Science*, but in a way that challenges students to think critically and analytically about the material they are reading in the text and hearing in their lectures.

This sixth edition holds true to our original formula. Each chapter has a similar format to aid your learning, beginning with a section called “Looking Back—Concepts from Earlier Chapters,” that emphasizes how each chapter builds on previous ones. Then, a “Concept Map” summarizes the concepts discussed in the chapter. Woven through this outline are boxes entitled “Check Your Understanding,” where you can write down brief responses to questions to give you a sense of your own understanding of the material as you

progress through the chapter. A section entitled “Mastering Challenging Topics” walks you through the most difficult topics and concepts, while a comprehensive section called “Assessing What You’ve Learned” tests your understanding of the material and helps you prepare for exams. Each chapter concludes with a section called “Looking Forward—Concepts in Later Chapters” that helps chart the course for what remains in the Study Guide. Thus, each chapter provides a formula for successful learning, knowledge, and retention.

With this sixth edition of the Study Guide, we feel that we have fine-tuned the concept of the Study Guide as an important tool for mastering a course in biological sciences. Together with the sixth edition of Scott Freeman’s *Biological Science* and the other support material available to the student and instructor, we hope this Study Guide will help instill our own love of biology and biological experimentation into future generations of biology students.

Our special thanks goes, of course, to our executive editor, Michael Gillespie, without whose enthusiastic support this project would not have been possible. We also thank the team of editors and other specialists at Pearson. Mae Lum project-managed this Study Guide, bringing to bear her language skills and attention to detail. The team at Integra also expertly formatted the pages.

Finally, we are extremely grateful to all of those important people in our lives—family, friends, colleagues, and students—who put up with our temporary neglect while we focused on the creation of this fifth edition of the Study Guide.

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