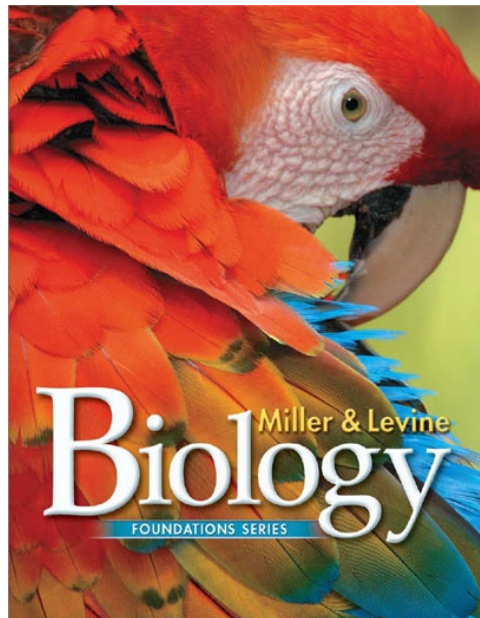


## Making the Content Accessible: Differentiated Instruction

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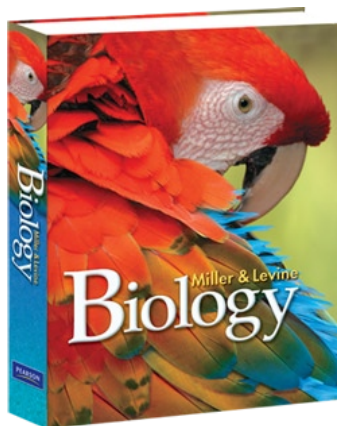


### Introduction

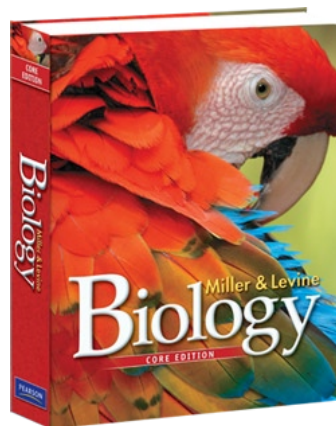
Students learn in different ways and at different rates. The Miller & Levine Biology program provides options that allow all students to participate in learning activities and achieve success. The program helps present standards-based instruction in a variety of accessible and unique learning formats. Supports like varied levels of text and visual summaries are used to close the achievement gap. This differentiated instruction guide presents five ways in which Miller & Levine Biology encourages use of individually targeted and differentiated instructional tools.

# 1. Varied Levels of Text and Comprehension Support

## On-Level Texts



**Comprehensive  
On-Level Text**



**Core Text**



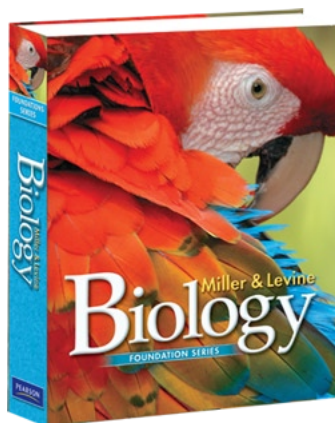
**Biology.com**

Available on Pearson SuccessNet

On-level text is available in the Comprehensive On-Level Edition, the Core Edition, and the complete online version on Biology.com. On average this text is written at a ninth-grade reading level, but the Teacher's Edition includes planning tools and strategy notes for differentiated instruction.

The Chapter Planner helps teachers target instruction for each lesson. Differentiated Instruction Keys tag activities for special needs students, English language learners, less proficient readers, on-level students, and advanced learners. Throughout each lesson, Differentiated Instruction notes appear in the Teacher's Edition margins. These strategies are coded with the same differentiated instruction tags as in the Chapter Planner.

## Adapted Texts



**Foundations Series  
Text**



**Biology.com**

Available on Pearson SuccessNet

This program also offers an alternate text option for struggling readers. The Foundations Series version of the program is written at an average sixth-grade reading level. It covers the same content as the on-level versions of the text. However, it provides added learning strategies and additional levels of reading comprehension support. These strategies help students engage effectively with the material before, during, and after reading.

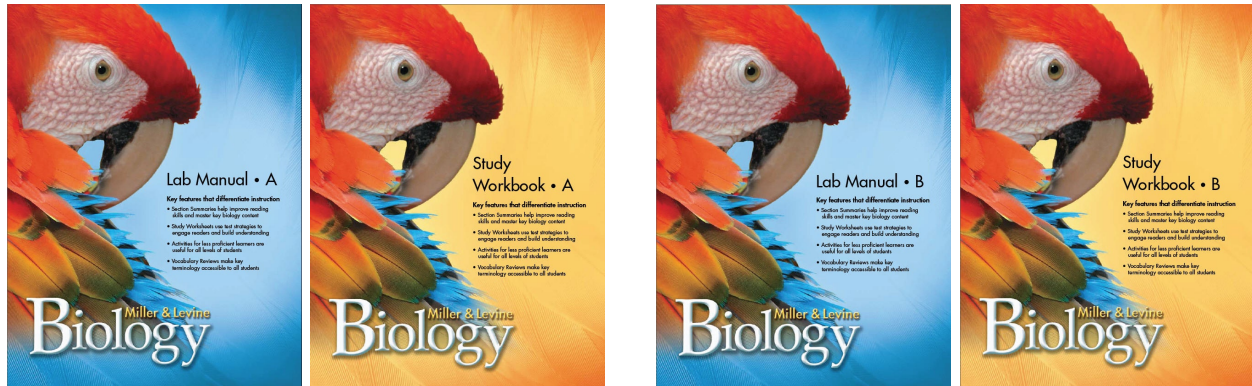
Added learning strategies help them build an understanding of what they have read, make real connections to the chapter concepts, and build content and academic vocabulary.

Adapted text options are also available for Biology.com. In addition to a Foundations Series e-book, the program features easy to read and understand digital chapter summaries and activities.

For more on the various text options, please view the other tutorials on this Web site.

## 2. Ancillaries with Varied Levels of Instruction and Support

In addition to the varied levels of texts, program ancillaries contain learner appropriate activities and instructional support. There are two versions of the study workbooks and lab manuals.



### A Versions

On-Level and Advanced-Level Students

### B Versions

Struggling Students, English Language Learners, and Less-Proficient Readers

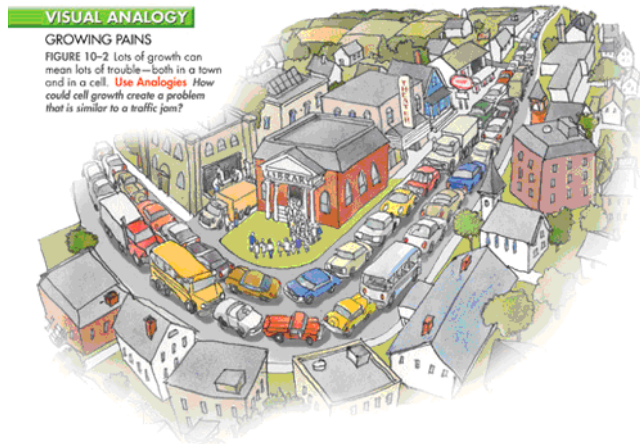
Study Workbook A provides practice for on-level students. Study Workbook B offers students more support and explicit strategies. It is most often used with struggling readers, English language learners, or students who need an increased level of support.

The labs in Lab Manual A are intended for on-level students. Lab Manual B is recommended for students who need additional support. Schools with limited lab resources will benefit from the many demonstration activities that use minimal lab equipment.

Learn more about the Study Workbooks in the Making the Content Comprehensible tutorial. Lab Manuals are covered in the Focusing on Inquiry tutorial. Both tutorials are available on this Web site.

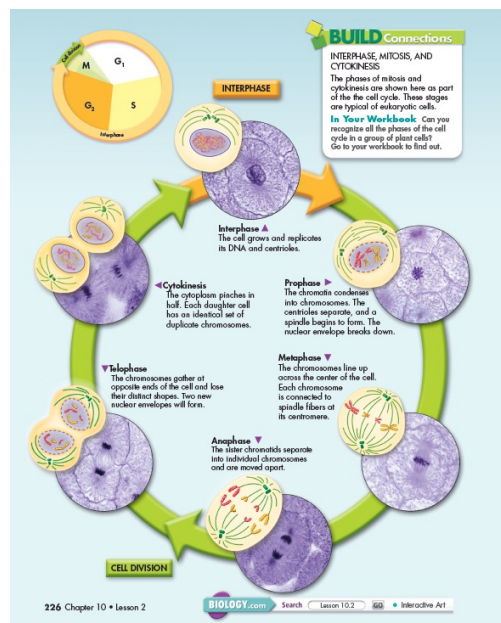
### 3. Visual Comprehension Strategies

Graphs, charts, illustrations, and photos work hand in hand with the text to clarify complex topics for students who think and learn visually. Many biology concepts are complex, and many students benefit from graphics that represent or clarify the content.



#### Visual Analogy

The program uses a unique form of visual presentation called *visual analogy*. Visual analogies give a different perspective on content, connecting difficult concepts to real-world situations that students will understand.



#### Visual Summary

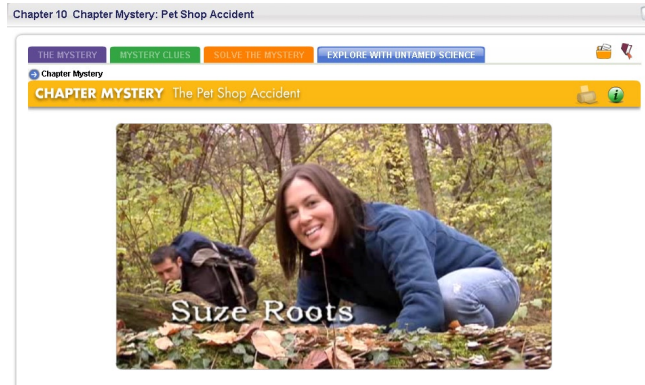
Another type of visual support available in this program is the *visual summary*. The goal of a visual summary is to take a complex concept that was just covered in class and break it down visually.

Both visual analogies and visual summaries are also available on Biology.com. Here, students have access to interactive graphics and activities.

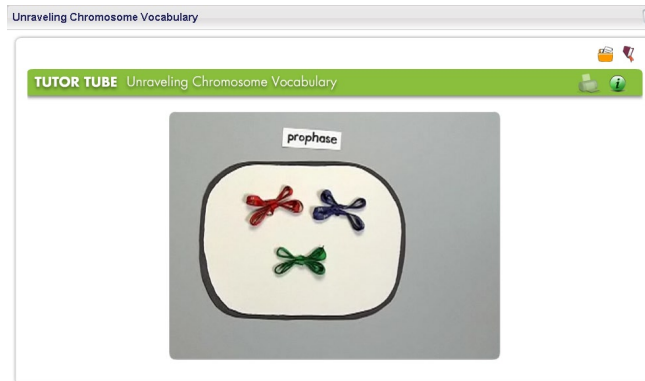
## 4. Digital Support and Content Reinforcement

Biology.com houses a variety of digital components that can be used to differentiate classroom instruction.

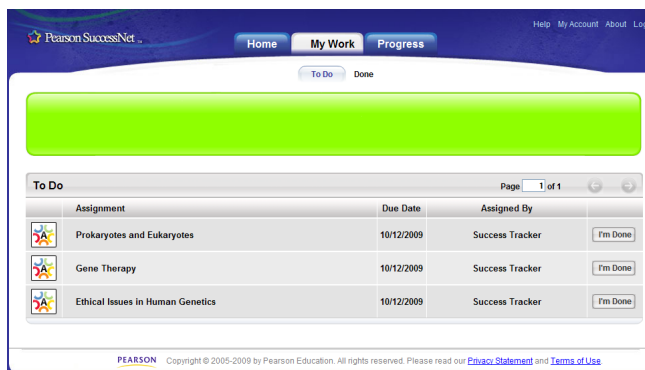
At Biology.com, students can view Chapter Mystery and Untamed Science videos. Each of these videos is closed-captioned to assist hearing-impaired students or lend support to English language learners.



Students who need assistance grasping a concept will benefit from Tutor Tube videos. These videos break down the concept and represent the content visually.



Success Tracker is an exciting feature that is available for Biology.com. Teachers have the ability to assign benchmark tests to their students. The system identifies a student's mastered and not mastered concepts. The Success Tracker system can then automatically assign digital content to reinforce concepts and remediate weak student understanding.



## 5. English Language Learner Support

English language learners will benefit from many suggestions in the Teacher's Editions. Focus on English Learners suggests activities that help students build background knowledge about unfamiliar topics, extend their use of English, and access the content.

### **EL** Focus on English Learners: Extend Language

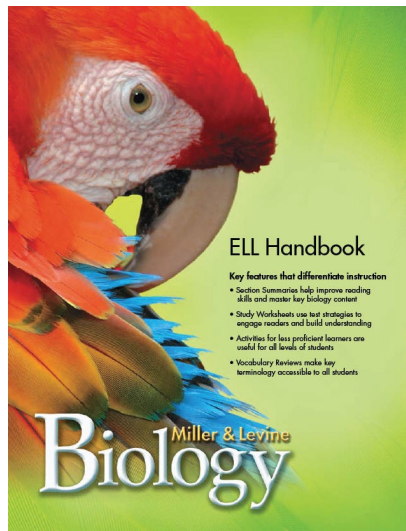
**Intermediate** Have students use the content on the page and in this section to complete a peer learning **Jigsaw Reading** activity.

Divide students into groups of six and assign each student a number from 1–6. If there are seven students in a group, assign two students the same number. Tell students that this group is their “learning circle.”

Ask students to reorganize into “study groups.” Students with the same assigned numbers should study together. Have each group focus on a different phase of the cell cycle: interphase, prophase, metaphase, anaphase, telophase, and cytokinesis. Study groups should work together to prepare a lesson on their phase.

Once the study groups have prepared and practiced their lessons, have students return to their learning circles. Each student in the learning circle should then present his or her phase in the order in which it occurs in the cell cycle.

The ELL Handbook helps teachers connect current ELL research and principles to the program content. This booklet presents each principle and provides concrete implementation tips that apply directly to the various student and teacher texts.



This topic is covered at length in the Making the Content Accessible: English Language Learners tutorial available on this Web site.

## Review

This guide presented five features of Miller & Levine Biology that assist teachers in differentiating classroom instruction.

- The text is available in on-level versions and also in the lower readability Foundations Series version. Each of these texts provides differentiated instructional support.
- Ancillaries such as the Study Workbooks and Lab Manuals are available in differentiated levels.
- Visual comprehension support is provided in the textbook and on Biology.com.
- Digital resources, available on Biology.com, can be used to reinforce concepts and remediate struggling students.
- Resources are available for English language learners. These resources are featured in the various Teacher's Editions and the ELL Handbook.

These are just a few of the resources that Miller & Levine Biology provides for all learners.