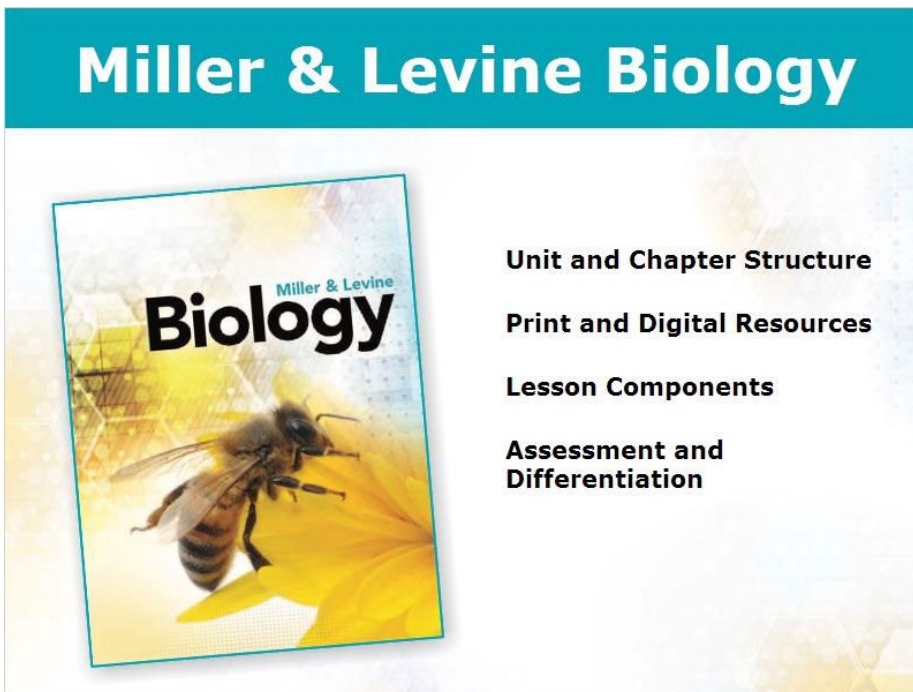


Miller & Levine Biology © 2019

Program Overview

Introduction



In this tutorial, we'll explore the features of *Miller & Levine Biology*.

We'll take a look at unit and chapter structure, print and digital program resources, lesson components, and assessment and differentiation features.

Unit and Chapter Overview

Blended print and digital curriculum

CHAPTER 6

ONLINE RESOURCES

- CLASS DISCUSSION A Diverse Collection
- INTERACTIVITY Biodiversity in Ecosystems
- IN YOUR NEIGHBORHOOD Biodiversity on the Forest Floor
- VIDEO Potato Famine
- ENGINEERING INTERACTIVITY Rainwater Capture
- INTERACTIVITY Ecosystem Services
- ASSESSMENT Lesson 6.3 Quiz

OBJECTIVES

6.3.1 Explain the factors of biodiversity.

6.3.2 Explain the factors of biodiversity.

6.3.3 Explain the factors of biodiversity.

6.3 Biodiversity, Ecosystems, and Resilience

KEY QUESTIONS

- What kinds of biodiversity exist?
- What are the benefits of biodiversity?
- What are some important ecosystem services?

VOCABULARY

biodiversity
ecosystem diversity
species diversity
genetic diversity
resilience
ecosystem services

READING TOOL

Complete the chart in the *Biology Foundation Workbook* to record main ideas and support details of the lesson.

From multicolored coral reefs to moss-draped forests, variety is "the spice of life." But variety in the biosphere gives us more than interesting things to look at. Our well-being is closely tied to the health of ecosystems, which in turn depends on community interactions.

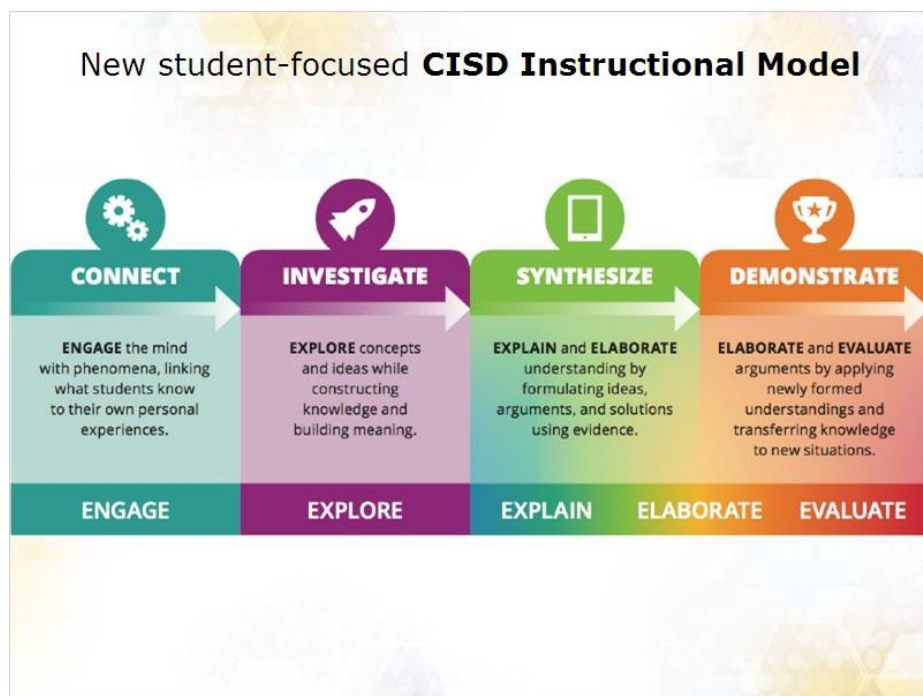
Miller & Levine Biology offers an exciting and unique approach to biology instruction.

This innovative new program was developed for the modern biology classroom with a focus on the new Next Generation Science Standards (or NGSS), STEM integration, and 21st century education. This blended print and digital curriculum immerses students in biological study as they investigate and interact with natural phenomena.

The components of the *Miller & Levine Biology* curriculum will:

- Ignite curiosity with authentic case studies, exciting partnerships, lab investigations and simulations.
- Promote understanding with reading support, visual aids, ELD strategies, performance-based assessment, and student monitoring.
- Inspire learning and a lifelong passion for science with real-world experiences, problem-based learning, and student-driven pedagogy.

Next Generation Science Standards




Miller & Levine Biology was developed with student engagement and the NGSS in mind. The student text has a reduced page count from earlier editions and a focus on core content needed for NGSS mastery. Students engage in making sense of phenomena and designing solutions to problems.

Miller & Levine Biology also integrates a new student-focused **CISD Instructional Model** (Connect, Investigate, Synthesize, and Demonstrate). This model emphasizes the science and engineering practices that include obtaining, synthesizing, and communicating information through problem-based learning. The CISD model aligns with the sequence of learning in the 5E instructional model.

Three-Dimensional Learning

Integrates the three dimensions of the NGSS to engage students in active learning



**NEXT GENERATION
SCIENCE
STANDARDS**
For States, By States

UNIT 1

Teaching With Next Generation Science Standards

In *The Nature of Life* unit, students will master four Life Science Performance Expectations and all of their associated Crosscutting Concepts, Science and Engineering Practices, and Disciplinary Core Ideas. Teaching about covering the Performance Expectations in groups is one way to make your goals more manageable. Following are some suggestions on how to group the Performance Expectations using the Miller and Levine Biology program.

STANDARD GROUP 1 HS-LS1-2, HS-LS1-3, HS-LS1-4

In Chapter 1, students are introduced to how science can help us solve problems by exploring the Processes of Science and Engineering Design interactively and by exploring and designing a hydroponics system in the Case Study and the Problem-Based Learning. In Chapter 2, they explore the Unique Properties of Water interactively and apply their knowledge to the *Redesign and Renew Your Solar Still STEM Project*. Students who are working on the Problem-Based Learning activities will apply their knowledge to design a solution to purify water.


STANDARD GROUP 2 HS-LS1-4

In Chapter 2, students will complete activities and labs such as the *Designing Your Own Bioreactors*, and the *Carbon Compounds Interactivity*, where they will apply chemistry concepts to construct evidence-based explanations of how carbon, hydrogen, and oxygen interact to form other large carbon-based molecules.

The next four pages will walk you through the Problem-Based Learning activities for Unit 1: *Building Local and Global Water Scarcity*. Students will use engineering skills to design and build and test a water still to purify water—all themes of the Performance Expectations in this unit. These activities can also be assigned individually to support your students' science skills development.

UNIT 1

The Nature of Life



CHAPTER 1
The Science of Biology

CHAPTER 2
The Diversity of Life

Crosscutting Concepts Science's history's most important way to gather information about the natural world, analyze that information, and apply it to address the way we live with and other with other living things, and with the planet that is home to us all. Scientific methodology includes a well-defined set of tools and approaches that can be adapted for different areas of study. In both the living and nonliving parts of our world, energy and matter interact in predictable ways that help us understand how life works.

BOUNCE VIDEO

Watch the video on the science of biology and the history of life.

CROSSCUTTING CONCEPTS

Crosscutting concepts appear throughout this unit in ways that are both more and more. Following is an overview of how the major crosscutting concepts for *The Nature of Life* are woven throughout the unit.

Scale, Proportion, and Quantity

Students recognize that biology involves the study of life in many scales, ranging from the subcellular level to the global level, and that as the scale increases, so can the complexity and quantity of interactions among the components. Students also discover the metric system and its advantages for measuring life and matter.

Patterns

Students discover that although life takes many different forms, all living things are functionally similar at the molecular level. They begin to see patterns and connections across all levels of organization.

Cause and Effect

Students are introduced to the idea that everything that happens in an organism is based on chemical reactions. These reactions involve changes in the chemical bonds that join atoms. The reactions can release or absorb energy, each of which has a consequent effect on the body.

Energy and Matter

Students explore the basic unit of matter—the atom—and how, through the energy of chemical bonds, atoms form molecules. They will explore the properties of water and carbon molecules, the components of all living things. Students discover how everything that happens in an organism is based on chemical reactions, which either release or absorb energy when chemical bonds are formed or broken.

UNIT 1

PROFESSIONAL DEVELOPMENT

Biology Outside the Classroom

- Plan a field trip to a natural history museum. Focus students' attention on exhibits that help explain scientific methodology.
- Schedule a visit to an electron microscope laboratory or an imaging center at your local university or medical center.
- Access chemistry resources from a university online, including chemistry information for your state and an "Ask a Chemist" resource.

BOUNCE VIDEO

Introduce Unit 1: *The Nature of Life* with a video hosted by author Joe Levine. Watch the video on your mobile device or download the free app *Person Bounce*. Then scan the QR code on the opposite page. You can also watch the video online.

ASSESSMENT

Unit 1 Benchmark Test After completing the unit, assign this test to assess learning of chapter-level content and integrated content.

2 Unit 1: The Nature of Life

Unit 1: The Nature of Life 3

Miller & Levine Biology integrates the three dimensions of the Next Generation Science Standards to engage students in active learning. Lessons simultaneously bring together crosscutting concepts, disciplinary core ideas, and science and engineering practices.

Now, let's learn more about the three dimensions.

DIMENSION 1: Science and Engineering Practices

DIMENSION 1
Science and Engineering Practices

Make Your Case

Human-caused global change creates a wide variety of challenges for people everywhere. Some challenges can be addressed at a local level, but others require international cooperation on a global scale.

Develop a Solution

- 1. Conduct Research** Explore the goals, accomplishments, and limitations of a regional group, such as the Southeast Florida Climate Compact or the Will Steger Foundation's Climate Generation. Your research should include verifiable scientific facts and expert scientific opinions.
- 2. Construct an Argument** Evaluate successes and challenges you perceive in the work of your chosen organization. Apply that information as you develop and propose a course of action to address related issues in your local area. What are the costs and benefits of action?

Students use problem-based learning activities, introduced at the beginning of each unit, authentic case studies, lesson activities, and performance tasks that involve students in practices that scientists and engineers use every day.

CASE STUDY: Analyzing Data

Evidence in Ice

Since 2002, NASA has used satellites to measure the mass of ice on Antarctica. The data is shown in the line graph.

- 1. Interpret Graphs** What is the overall trend in the mass of ice on Antarctica?
- 2. Evaluate Evidence** How does the data support the conclusion that Earth's climate is warming?
- 3. Predict** How do you think the mass of Antarctic ice will change in the future? Cite evidence and use logical reasoning to support your prediction.
- 4. Connect to Society** Explain why it is important for scientists to collect and monitor Antarctic ice data.

Source: NASA

Students use problem-based learning activities, introduced at the beginning of each unit, authentic case studies, lesson activities, and performance tasks that involve students in practices that scientists and engineers use every day.

DIMENSION 2: Crosscutting Concepts

DIMENSION 2
Crosscutting Concepts

Students explain phenomena by applying crosscutting concepts found across all domains of science, such as patterns, cause and effect, structure and function, or stability and change. Crosscutting concepts are made explicit in lessons, videos, and chapter assessments.

Crosscutting Concepts Ecology deals with life at all scales, from microscopic to planetary. Organisms interact with each other and with their environments, forming global systems driven by energy. Those systems are rarely stable. Causes of global change produce measurable effects on all living things, including humans.

BOUNCE TO ACTIVATE **VIDEO**
Author Joe Levine talks about stability and change, using succession as an example.

CHAPTER 7
ASSESSMENT

CROSSCUTTING CONCEPTS

34. **Cause and Effect** How has the burning of fossil fuels contributed to global climate change?
35. **System and System Models** Why is it important to include oceans, the atmosphere, and human activities when developing a useful model of ocean acidification?
36. **Stability and Change** How could decisions that people make today determine whether global systems will change or remain stable in the future? Cite evidence and a specific example to support your answer.

Students explain phenomena by applying crosscutting concepts found across all domains of science, such as patterns, cause and effect, structure and function, or stability and change. Crosscutting concepts are made explicit in lessons, videos, and chapter assessments.

DIMENSION 3: Disciplinary Core Ideas

DIMENSION 3
Disciplinary Core Ideas

Disciplinary Core Ideas (or DCIs) are the fundamental ideas that are necessary for understanding a given science discipline. Students gain a deeper understanding of these ideas in each lesson through activities such as Quick Labs, Data Analysis, and Lesson Review.

LESSON 7.2 Review

KEY QUESTIONS

1. Why do human causes of global change occupy a larger portion of the global change model than non-human causes?
2. What is the relationship between global warming and global climate change?
3. Explain one way that land use by humans affects nutrient cycles.

CASE STUDY Quick Lab Guided Inquiry

How Does Acid Affect Shells?

Vinegar is a solution of acetic acid. Mix vinegar and water in 5 beakers. Put only water in one beaker, only vinegar in another beaker, and mixtures of varying concentrations in the other beakers. Label each beaker.

1. Place 4 to 10 crushed pieces of egg shells in each beaker.
2. Wait one day. Then pour out the liquid from each beaker, and place the egg shell pieces on a paper towel. Examine the egg shell pieces.

HS-LS2-7: Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.

HS-ETS1-1: Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.

HS-ESS3-3: Create a computational simulation to illustrate the relationships among management of natural resources, the sustainability of human populations, and biodiversity.

HS-ESS3-4: Evaluate or refine a technological solution that reduces impacts of human activities on natural systems.

HS-ESS3-6: Use a computational representation to illustrate the relationships among Earth systems and how those relationships are being modified due to human activity.

Disciplinary Core Ideas (or DCIs) are the fundamental ideas that are necessary for understanding a given science discipline. Students gain a deeper understanding of these ideas in each lesson through activities such as Quick Labs, Data Analysis, and Lesson Review.

Problem-Based Learning



The Problem-Based Learning strand introduced in each unit is just one way this program engages students in the practice and language of science.

Every unit focuses on a real-life, long-term problem that will engage students in analytical thinking, collaboration, and self-directed learning. Applicable standards, pacing, and instructions for the unit are located in the teacher materials.

The Explorer's Journal: Problem-Based Learning Workbook is a student tool for navigating the **Problem-Based Learning** activities. Students record and evaluate their findings in their digital Explorer's Journal on Savvas Realize.

Students use their Explorer's Journal to take notes, answer questions, track their progress, and evaluate their work. This journal includes prompts and questions that help students extract the information they need from each activity in the learning path. The workbook also guides students as they record data, develop their own conclusions, and prepare to demonstrate the knowledge they have gained when they present their findings in the Problem Wrap-up.

Identifying and Solving Real Problems

Encourages students to think like scientists

CHAPTER 6
Communities and Ecosystem Dynamics

6.1 Habitats, Niches, and Species Interactions
6.2 Succession
6.3 Biodiversity, Ecosystems, and Biomes

Beavers build dams that shape river ecosystems.

CASE STUDY
How do species interactions shape ecosystems?

As dusk falls over Yellowstone National Park, elk emerge from dense woods to browse on tender willows along a stream. Suddenly, they freeze. As instant later wolves dash from the forest, aiming for a kill. The elk react in the nick of time, bolting out of reach. This hunt, like most, has failed. But those elk have been attacked here before. Will they now decide to graze elsewhere?

This dramatic encounter offers a window into community ecology, the study of interactions among species in a food web. As it turns out, human disturbance of this web set the stage for experiments that have improved our understanding of both wild ecosystems and those affected by human activity.

The story began during the 1800s, as ranchers started shooting and poisoning wolves that preyed on livestock. By the 1900s, they had eliminated all wolves in the region. Elk populations boomed, and they overgrazed willows along streambeds.

The overgrazing affected beavers, which eat willows and also use them to build dams that create ponds. Those dams create marshy areas, keeping the water table close to the surface and providing good growing conditions for willows. Streams with dams and willows also offer homes to fishes and birds.

By the 1950s, elk overgrazing caused beaver populations to collapse. Dams and marshy areas disappeared. Streams flowed faster, carving deeper channels. The water table fell. Fishes and birds suffered. These changes, all resulting from removal of one key predator, are called a trophic cascade. In this cascade, wolf removal reshaped both the biological community and its physical environment.

In an effort to restore these habitats, biologists reintroduced wolves in the late 1990s and have been monitoring the situation ever since. After so many changes spread through the ecosystem, could returning wolves to the system “reboot” it?

In some places, the answer seems to be yes. As wolf populations grew, elk populations fell, and willows grew back. Beavers returned, built dams, and the ecosystem was restored. But elsewhere, willows didn’t recover after elk populations dropped. Beavers didn’t return. The system seemed stuck in an altered state.

It turns out that this complex community is hard to understand and rebuild. Yellowstone is home to more than 40 other mammal species, some of which prey on elk, while others alternate prey for wolves. Alas, in some parts of Yellowstone, the loss of beavers changed stream structure in ways that couldn’t easily be reversed.

This case raises many questions. How do predators and prey affect each other? How do community structure and complexity affect species diversity? Why is this diversity important? What factors change an ecosystem? What do those changes look like? Can they be reversed?

Throughout this chapter, look for connections to the **Case Study** to help you answer these questions.

Miller & Levine Biology encourages students to think like scientists by participating in an active learning environment.

Throughout each lesson, students learn about real-life issues in their community and take steps to solve them. Engaging Case Studies provide examples of biology in the real world and connect related activities, visual features, and labs together for greater comprehension while making biology relevant to their lives. The Case Studies serve as anchoring phenomena for the chapter.

Students Make their Case in the Case Study Wrap Up by gathering data, citing evidence, and applying scientific reasoning to develop argument-driven discussions with their peers. The Technology on the Case and Society on the Case articles further extend the case study by showing how scientists use technology to make an impact in the world around them.


Go beyond the classroom with Scientists at Work Videos in Realize, which allow students to experience first-hand accounts from biology professionals in the field. Integrated in the core course, these multimedia resources from HHMI Biointeractive pique students’ interest and maximize comprehension of biology concepts.

Other resources from HHMI Biointeractive include engaging animations, Data Analysis Tutorials, Holiday Lectures on Science and Short Films. Lectures and Films include a collection of supporting materials, quizzes, hands-on activities, and teacher lesson plans to increase their impact.

Data Analysis tutorials teach students essential analysis techniques and are aligned to a collection of supporting materials, quizzes, hands-on activities, and teacher lesson plans to increase their impact.

Inquiry-Focused Labs and Field Trips

Quick Labs



Quick Lab

Guided Inquiry

Acidic and Basic Foods

- Construct a data table that includes food samples to be tested, predicted pH, and actual pH.
- Predict whether the food samples provided are acidic or basic.
- Tear off a 2-inch piece of pH paper for each sample you will test.
- Test each food sample in your data table. Use a dropper pipette to place a liquid sample on a piece of pH paper. Record the pH of each sample.

ANALYZE AND CONCLUDE

- Analyze Data** Use the pH measurements to classify the foods as acidic and basic. Was your prediction correct?
- Construct an Explanation** Based on your observations, are you able to classify the foods according to pH. For example, what pH group would you generalize?

Quick Lab


Open-Ended Inquiry

How Can You Model Energy Flow in Ecosystems?

- Using materials of your choice, develop a mathematical model of energy flow through four trophic levels in an ecosystem. To start, decide what will represent one energy unit. Then, decide what will represent the trophic levels.
- Model the amount of available energy in the first trophic level. Set up a data table to record the number of energy units available in your model.
- Next, model how this energy transfers to the second, third, and fourth trophic levels. Record your data in your data table.

ANALYZE AND CONCLUDE

- Use Models** About how much energy is transferred from one trophic level to the next? How does your model show this flow of energy?
- Evaluate Claims** A classmate claims that energy is conserved as it flows through an ecosystem. Use your model and scientific reasoning to support or refute this claim.
- Support Claims** Support the claim that matter is conserved when one organism eats another.



One Activity per Chapter

Quick Labs are at point of use in the student narrative, with one activity per chapter. They are easy to implement, have minimal set-up and clean-up, and can be completed in a short period of time.

Each chapter also includes an in-depth investigation, or Chapter lab. Students strengthen inquiry skills as they make models, study local science issues, and complete experiments. Teachers can customize labs to fit every classroom with online editable versions in Realize.

Miller & Levine Biology integrates two cutting edge virtual lab simulations from Labster into our program. All Labster Labs are based on real-life case studies that captivate student attention as they conduct a wider range of experiments in a virtual million-dollar lab setting. Additional Labster Lab Simulation packages, with up to 21 labs, are available.

By using Virtual Labs, students simulate the classroom lab experience in an enhanced digital environment. Students conduct experiments that may not be possible in a traditional classroom lab. Labster Virtual labs make safety concerns and clean-up obsolete!

Google Expeditions are virtual reality tours that take students on immersive journeys all around the world. Teachers can lead classroom-sized groups of students through collections of 360° and 3D images.

Learning Strategies

Includes a **variety of tools** to help your entire class

The image shows a preview of a textbook page for Chapter 2, Lesson 2.1, titled "Chemical Compounds". The page is designed with a variety of learning tools to support different types of learners. Key features include:

- Text and Diagrams:** The main text discusses chemical compounds, using the example of sodium chloride (NaCl). It includes a diagram of a sodium atom (Figure 2.3) and a diagram of a sodium chloride crystal lattice (Figure 2.4).
- Chemical Bonds:** A section titled "Chemical Bonds" explains how atoms combine to form molecules, using the example of water (H₂O).
- Interactive Elements:** There are several interactive boxes and icons throughout the page, including "Check Your Understanding", "Assess on the Spot", and "Interactivity".
- Visuals:** The page includes several photographs and diagrams, such as a photograph of a sodium chloride crystal (Figure 2.4) and a diagram of a sodium atom (Figure 2.3).
- Language Development:** A section titled "English Language Development" provides additional support for students who are learning English.
- Supporting Students:** A section titled "Supporting Students" offers strategies for teachers to help students who may have difficulty understanding the material.

Miller & Levine Biology includes a variety of tools to help your entire class build science literacy, comprehend abstract concepts, and achieve success in biology. Reach all students using tips provided in the margins including connections to visuals, connections to other subjects, reading tools, and activities.

The *Biology Foundations: Reading and Study Guide Workbook* offers reading support with summaries at a simple reading level and scaffolds content so students are able to access on-level material.

Differentiated Instruction components include modified instruction for special needs students, struggling students, less proficient readers, and advanced students.

Support for ELL Students accompanies on-level activities in every lesson, with strategies for modification and extension. The Teacher's Edition provides writing, reading, and speaking and listening activities to support English language learners.

Student Assessment and Evaluation Tools

Rich with assessment types

CHAPTER 22
ASSESSMENT

CROSSCUTTING CONCEPTS

35. **Structure and Function** As first glance an oak tree and a palm tree are similar in many ways. Describe the characteristics that they do share in common. What are the characteristics of the oak tree that distinguish it from the other kingdoms of living things?

36. **Stability and Change** Compare the benefits and drawbacks of sexual reproduction and vegetative reproduction for a plant.

MATH CONNECTIONS
Analyze and Interpret Data

For several years, a homeowner notices moss growing in the back yard in areas where grass otherwise would grow. Half of the yard receives direct sunlight while the other half is shady. The table shows the data that the homeowner collected. Use the table to answer questions 37 and 38.

Number of Mosses in Soil		
Distance from Path (meters)	Before Disposal (July)	After Disposal (November)
0	14	14
5	14	14
10	10	10
15	2	7

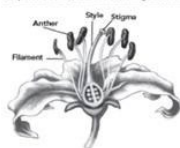
37. **Draw Conclusions** What conclusion about the growth of moss does the data support?

38. **Apply Scientific Reasoning** The area of moss in the shade ranges from none to 14 square inches. What are some possible explanations for this range of values?

Refer to the text and data table to answer questions 39 and 40. In a laboratory experiment, fruits from 5 different types of trees were dropped from a height of 4 meters. The falling time was measured and recorded in the data table shown here. Assume that for every second that a fruit falls, the wind carries it 1.5 meters away from the parent tree.

CHAPTER 22
END-OF-COURSE TEST PRACTICE

For questions 1 and 2, refer to the following illustration.



1. Andrew wants to infer whether or not the flower is pollinated by an insect, such as an insect or bird. Which property of the flower would be most useful for making this inference?

A. number of stamens
B. location of the style
C. color and shape of the petals

2. Vascular tissue allows a plant to lift water against the pull of gravity. Which statement best describes the trait of vascular tissue in the plant kingdom?

A. All plants use vascular tissue to transport water.
B. Most plants, but not mosses and other bryophytes, use vascular tissue to transport water.
C. Only woody plants, such as trees and shrubs, use vascular tissue to transport water.
D. Only herbaceous plants, such as grasses and garden vegetables, use vascular tissue to transport water.

3. The life cycle of a plant includes two alternating phases: a diploid (2N) phase and a haploid (N) phase. As plants evolved in many stages from green algae to seed plants, what trend occurred in the alternating phases?

A. The haploid phase became larger.
B. The diploid phase became larger.
C. The two phases each became smaller.
D. The two phases each became wider.

4. Which adaptation distinguishes all seed plants from mosses and ferns?

A. Seed plants are larger in size.
B. Seed plants reproduce with flowers.
C. Seed plants transport water against gravity.
D. Seed plants reproduce without needing water.

5. A cucumber is often called a vegetable because of the way it is used as a food. What property of the cucumber shows that it is properly classified as a fruit?

A. It has a rounded shape.
B. It develops above ground.
C. It has a fleshy, edible center.
D. It contains the seeds of the plant.

Assessment types:

- Performance-based tasks
- Research projects
- Inquiry investigations
- Labs
- Open-ended response questions
- Multiple-choice questions
- Drag-and-drop questions.

ASSESSMENT

For additional assessment practice, go online to access your digital course.

14	5	6
22.1	22.2	22.3

End-of-Course Test Practice 759

The *Miller & Levine Biology* program is rich with assessment types that work in combination to assess three-dimensional learning.

Item types include performance-based tasks, research projects, inquiry investigations, labs, open-ended response questions, multiple-choice questions, and drag-and-drop questions.

When students take the assessments online in Realize, the teacher receives instant feedback on performance, which informs instruction based on results.

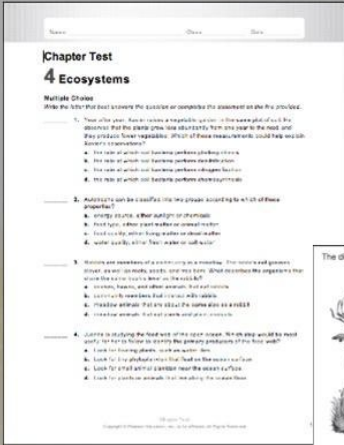
Miller & Levine Biology includes the following assessment types:

- Pre-Testing
- Formative Assessments for Learning
- Summative Assessments of Learning
- Performance-Based Tasks

Let's learn more about each assessment type.

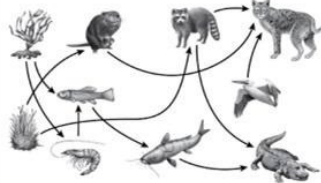
Pre-Testing

Pre-Testing



Students come to the classroom with a range of pre-existing knowledge and academic backgrounds. Use our Diagnostic Pre-Test and the Activate Prior Knowledge feature in the Teacher's Edition to measure what students know and inform instruction.

The diagram shows a model of feeding relationships in an ecosystem? What is shown by the arrows that lead to and from the raccoon?



☐ A. The raccoon is part of several food chains, but not a food web.

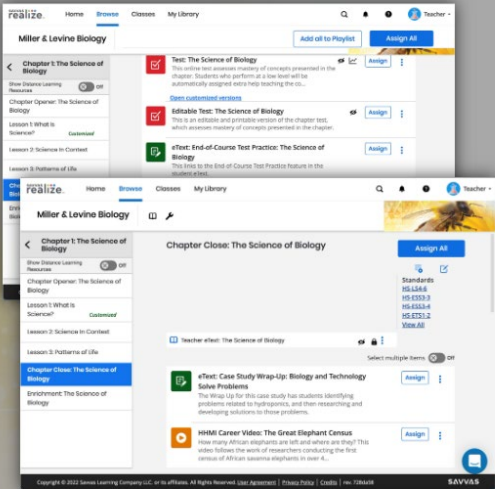
☐ B. The raccoon is part of several food chains and several food webs.

☐ C. The raccoon is part of one food web, but no food chains.

☐ D. The raccoon is part of one food web and several overlapping food chains.

Formative Assessments for Learning

Formative Assessments of Learning



Formative Assessments in *Miller & Levine Biology* include Lesson Review, Lesson Quizzes, Quick Labs, Chapter Labs, Analyzing Data Labs, Reading Checks, and Study Guides.

Summative Assessments of Learning

Summative Assessments of Learning


Evaluate student understanding at the end of every instructional segment. A variety of measures provide multiple data points to assess student progress. The Summative Assessment options in *Miller & Levine Biology* include Chapter Assessments, End-of-Course test prep, Customizable Chapter Tests on Savvas Realize, Unit Benchmark tests, and an ExamView Assessment Suite.

Performance-Based Tasks

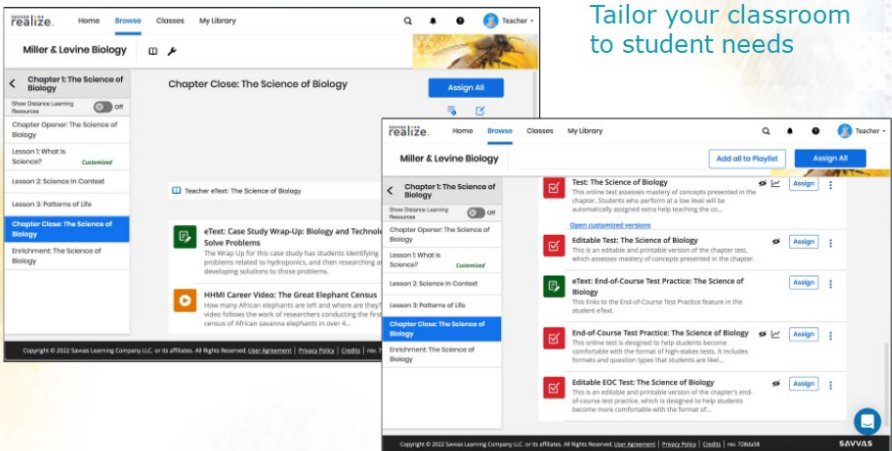
Performance-Based Tasks

Find evidence of new student learning with performance-based tasks. With these assignments, students demonstrate their mastery of performance expectations by applying their understanding to new problems. *Miller & Levine Biology* encourages active learning through Problem-Based Learning projects, Performance-Based Assessments, the Make Your Case feature, and STEM Projects.

Savvas Realize



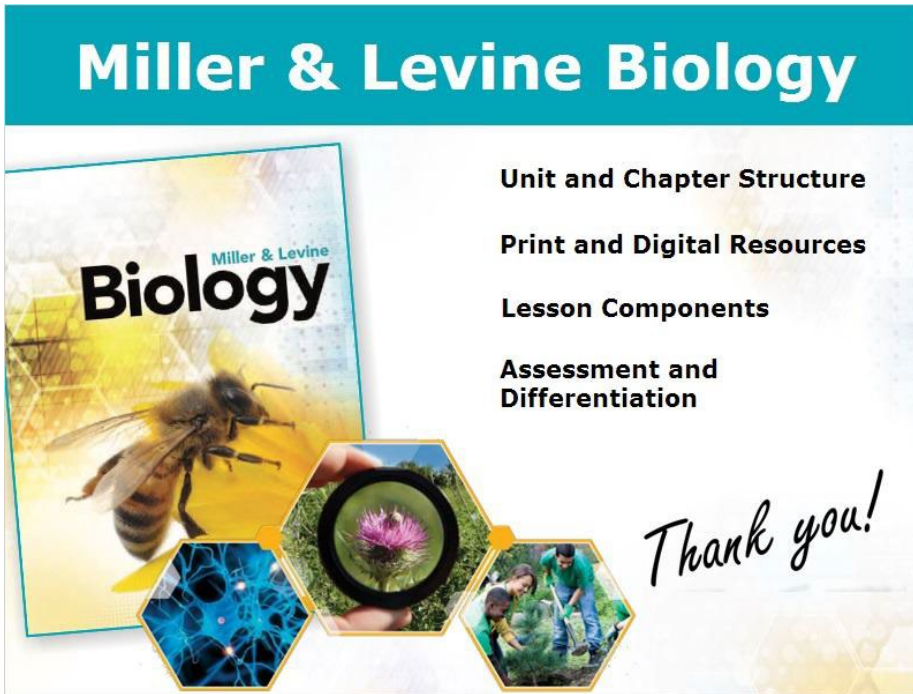
Single sign-on
Digital support
Enhanced learning
Tailor your classroom
to student needs



The screenshot displays the Savvas Realize web application. The top navigation bar includes 'Home', 'Browse', 'Classes', and 'My Library'. The main content area is titled 'Miller & Levine Biology' and shows a sidebar with a list of chapters and lessons. The 'Chapter Close: The Science of Biology' is selected. The main panel displays a list of resources for this chapter, including 'Teacher eText: The Science of Biology', 'eText: Case Study Wrap-Up: Biology and Technology Solve Problems', 'HHMI Career Video: The Great Elephant Census', and a list of tests: 'Test: The Science of Biology', 'Editable Test: The Science of Biology', 'eText: End-of-Course Test Practice: The Science of Biology', 'End-of-Course Test Practice: The Science of Biology', and 'Editable EOC Test: The Science of Biology'. Each resource has an 'Assign' button.

SavvasRealize.com is your online destination for *Miller & Levine Biology*. A single sign-on provides access to all content, management tools, and real-time student data. Throughout the lessons, digital support is presented at point of use to enhance the learning experience. Instructor resources are easy to find and customize to help you tailor your biology classroom to your students' needs.

Closing



In this tutorial, we examined the key program features and materials of *Miller & Levine Biology*. We looked at unit and chapter structure, print and digital program resources, lesson components, and assessment and differentiation features.

Visit [MySavvasTraining.com](https://www.mylsavvas.com) to learn more about *Miller & Levine Biology*.