Miller & Levine Biology

Explore *Miller & Levine Biology* Teacher Toolkit

Grades 9-12

Your Resources

Smart Start

Wonder what you should do first as you prepare to teach *Miller & Levine Biology*? Follow this Smart Start tool!

Digital Resources

Use this guide for a quick snapshot of your key digital resources.

Digital Paths

Would you like to navigate the digital resources? Follow the Digital Paths to learn how!

- Savvas Realize™ Quick Reference Guide for Teachers
- Savvas Realize Platform Training
- Miller & Levine Biology © 2019 Digital Path

Planning Tools

Use these handy resources to help with pacing and planning your units.

http://www.mysavvastraining.com/

A **one-s top, 24-hour training website** with thousands of Savvas resources

www.SavvasRealize.com

A **web-base d digital por tal** with full access to the program

How to Get Support

WEBINARS

Sign up for unlimited live webinars on topics of your choice with Savvas Certified Consultants. Attend these in small groups or individually.

EMAIL

Email support conveniently puts you in touch with a Savvas Certified Consultant to quickly answer questions.

CALL

1-800-234-5832

ONLINE SUPPORT

https://support.savvas.com/support/s/contactsupport

CHAT

The Live Chat feature connects you directly with a Savvas Certified Consultant for instant answers to your questions.

Use this map to start your *Miller & Levine Biology* learning journey.

1. DIG into resources.

- ❑ Familiarize yourself with the **program components**.
- ❑ **TE**: Read the **front matter**.
- ❑ **SE**: Check out the **layout** and **structure**.
- ❑ **RLZ**: Explore the **Table of Contents**.

2. TOUR the program.

- ❑ **RLZ**: Review a **Unit** and one of its **Chapter** folders.
- ❑ **myST**: Go to the **On-Demand Training** tab and review the various resources including:
  - ❑ *Program Overview*
  - ❑ *Explorer's Journal*
  - ❑ *Where is the Problem-Based Learning in a Unit?*

3. PREPARE for instruction.

- ❑ **myST**: Go to the **On-Demand Training** tab for Savvas Realize and review the various resources for teachers.
- ❑ **RLZ**: Review the **Program Resources** folder.
- ❑ **RLZ**: Review the **Unit** folders and **Chapter** folders.

4. COLLABORATE with others.

- ❑ Practice a lesson with a colleague.
- ❑ **Observe a colleague** teaching a lesson.
- ❑ **myST**: Attend a chat/email session and ask questions.
- ❑ **myST**: Schedule a customized, topic-specific webinar with a Certified Training Specialist.

Key

TE — Teacher Edition
SE — Student Edition
myST — my Savvas Training
RLZ — Savvas Realize

Use this map to prep your *Miller & Levine Biology* classroom.

Get Set Up

Configure your classroom:

- ❑ Create dedicated space and procedures for labs.
- ❑ Create flexible space for **whole-group learning**, **small-group instruction**, and **independent work**.
- ❑ **Distance Learning**? Check out the distance learning options within Savvas Realize.

Get Organized

Prepare for instruction:

- ❑ **Establish routines** for using devices in class.
- ❑ Determine what kind of **technology integration** you'll use. What activities will students complete in print or online?

Get Planning

- ❑ Review the **Contents**, **Next Generation Science Standards* Correlation**, **Common Core Correlation**, **Next Generation Science Standards Learning Progression**, and **Pacing Guide** in the front matter of the TE.
- ❑ Familiarize yourself with the **Problem-Based Learning** for an upcoming Unit.
- ❑ Review the **Chapter Planner** and **Lesson Plan Overviews** for an upcoming Chapter.
- ❑ Familiarize yourself with the **Case Study** for an upcoming Chapter.
- ❑ Determine the **lesson activities** and **assessments** that you will use throughout the Unit.
- ❑ Review the ***Explorer's Journal*** Problem-Based Learning assets on Savvas Realize for an upcoming Unit.
- ❑ Review the ***Biology Foundations*** worksheet pages on Savvas Realize for an upcoming Chapter.
- ❑ Gather materials for the Unit's **labs**.

Digital Resources

Savvas Realize includes **full, digital** access to *Miller & Levine Biology*.

- www.SavvasRealize.com
- Interactive Student Edition
- Interactive Teacher Edition
- Unit, Chapter, and Lesson Resources
- Assessments

Empower yourself and your students with the digital resources!

HHMI BioInteractive®	Send students on an interactive journey utilizing videos, tutorials, and activities from HHMI BioInteractive.
Google Expeditions™	Take your class on a virtual reality tour using Google Expeditions! You may use Google Cardboard™ or another 3-D viewer to enhance the experience.
ExamView® Assessment Suite	Create your own standards-aligned assessments using ExamView! Choose questions from a test bank or create your own. Students take tests digitally, and select portions can be auto-graded for your convenience.
Google Classroom™ integration	Allows teachers to use Savvas Realize content together with their Google Classroom instructional plans to better reach all learners. With one click, teachers can share Savvas Realize content through Google Classroom via the Classroom Share button.

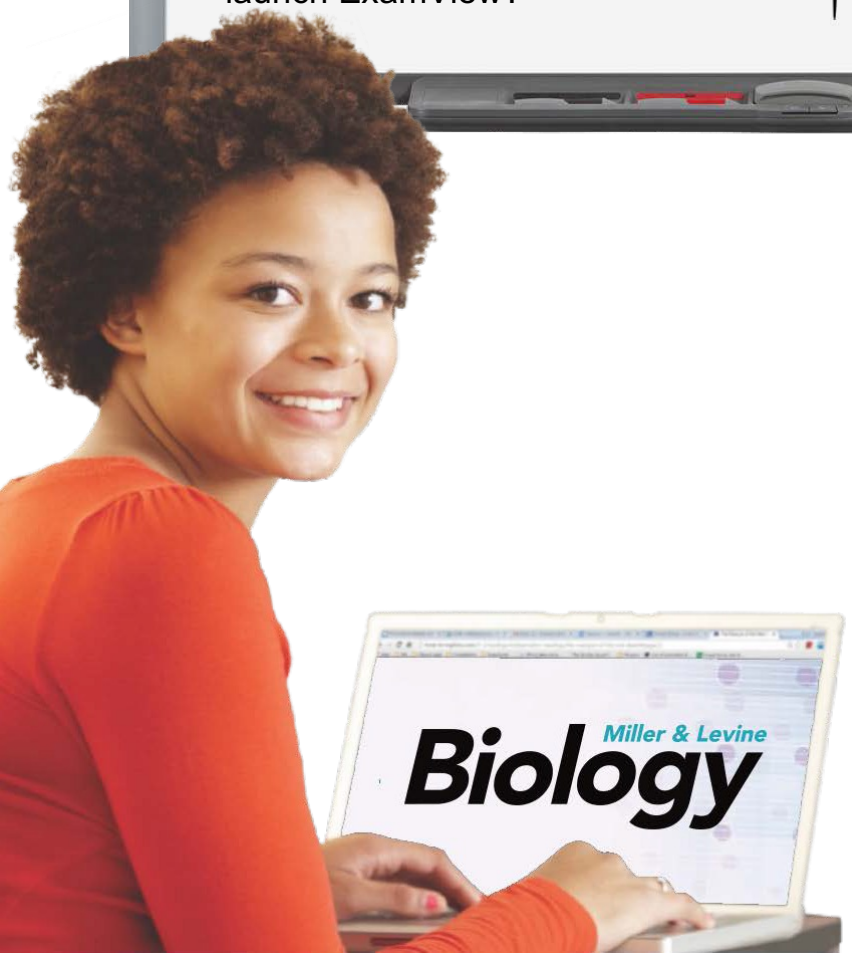
Visit **my Savvas Training** to learn more about navigating and reporting within Savvas Realize and the *Miller & Levine Biology* digital tools.

Digital Paths

Are you wondering how to get started on Savvas Realize and use the digital resources? We have created the following **Digital Paths** to support you as you navigate the Savvas Realize website.

You can access the Digital Paths on my Savvas Training.

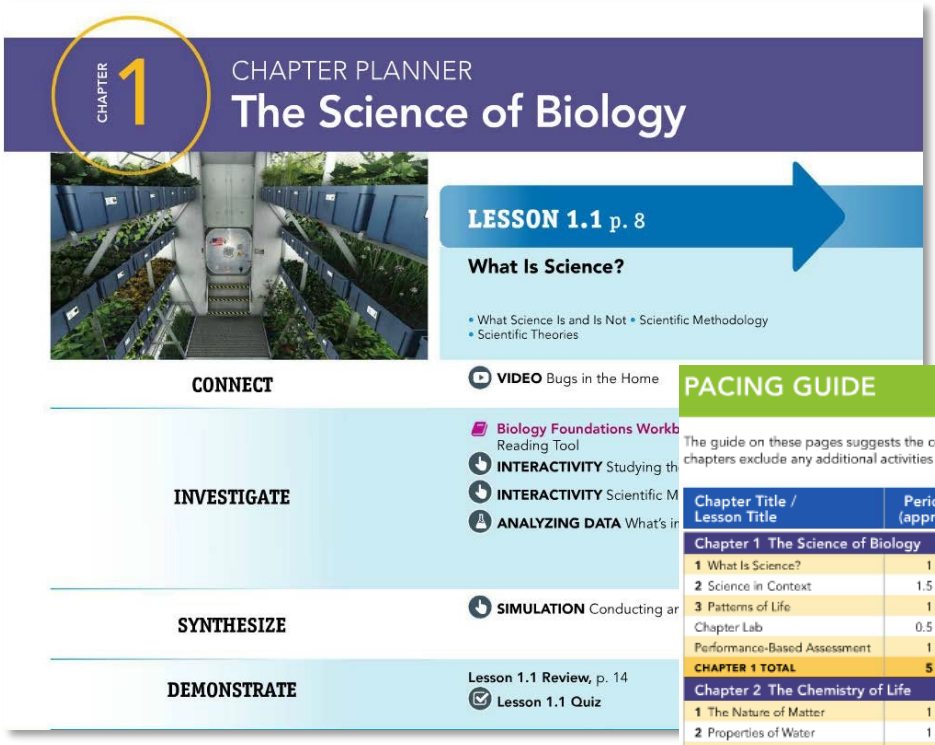
Are You...	Use this Digital Path
Not sure how to access the digital resources on Savvas Realize?	**Savvas Realize Platform Training**
Looking for a comprehensive list of Savvas Realize features and functions?	**Savvas Realize Quick Reference Guide for Teachers**
Not sure how to navigate through your digital program platform?	***Miller & Levine Biology* © *2019* Digital Path**
Looking to download, install, and launch ExamView?	***Miller & Levine Biology* © *2019* Instruction for Downloading ExamView**



Planning Tools

Miller & Levine Biology provides planning resources that allow you to customize lessons.
Use these helpful tools:

- In the front matter of the TE, review the Contents, Next Generation Science Standards Correlation, Common Core Correlation, Next Generation Science Standards Learning Progression, and Pacing Guide.
- In each chapter, review the Chapter Planner.
- In each lesson, review the Lesson Plan Overview.



CHAPTER 1

CHAPTER PLANNER

The Science of Biology

LESSON 1.1 p. 8

What Is Science?

• What Science Is and Is Not • Scientific Methodology
• Scientific Theories

CONNECT

VIDEO Bugs in the Home

INVESTIGATE

Biology Foundations Workb
Reading Tool
INTERACTIVITY Studying th
INTERACTIVITY Scientific M
ANALYZING DATA What's in

SYNTHESIZE

SIMULATION Conducting ar

DEMONSTRATE

Lesson 1.1 Review, p. 14
Lesson 1.1 Quiz

PACING GUIDE

The guide on these pages suggests the core time to spend on each lesson of each chapter. Time allotments for chapters exclude any additional activities or projects you may choose to add.

Chapter Title / Lesson Title	Periods (approx.)	Blocks (approx.)
Chapter 1 The Science of Biology		
1 What Is Science?	1	0.5
2 Science in Context	1.5	0.75
3 Patterns of Life	1	0.5
Chapter Lab	0.5	0.25
Performance-Based Assessment	1	0.5
CHAPTER 1 TOTAL	**5**	**2.5**
Chapter 2 The Chemistry of Life		
1 The Nature of Matter	1	0.5
2 Properties of Water	1	0.5
3 Carbon Compounds	2	1
4 Chemical Reactions and Enzymes	2	1
Chapter Lab	1	0.5
Performance-Based Assessment	0.5	0.25
CHAPTER 2 TOTAL	**7.5**	**3.75**

Chapter Title / Lesson Title	Periods (approx.)	Blocks (approx.)
Chapter 5 Populations		
1 How Populations Grow	1	0.5
2 Limits to Growth	1	0.5
3 Human Population Growth	0.5	0.25
Chapter Lab	0.5	0.25
Performance-Based Assessment	1	0.5
CHAPTER 5 TOTAL	**4**	**2**
Chapter 6 Communities and Ecosystem Dynamics		
1 Habitat, Niches, and Species Interactions	1	0.5
2 Succession	1	0.5
3 Biodiversity, Ecosystems, and Resilience	1	0.5
Chapter Lab	0.5	0.25
Performance-Based Assessment	1	0.5
CHAPTER 6 TOTAL	**4.5**	**2.25**
Chapter 7 Humans and Global Change		
1 Ecological Footprints	1	0.5
2 Causes and Effects of Global Change	1.5	0.75
3 Measuring and Responding to Change	1	0.5
4 Sustainability	1	0.5
Chapter Lab	1	0.5

LESSON PLAN **OVERVIEW 1.1**

Pacing 1 period, ½ block

Begin the lesson by defining science and emphasizing that it is a process. Discuss the goals of science, the need for testable hypotheses and organized data collection. Encourage students to consider the thinking behind science and explain that it is more than just learning facts. Spend time going through the scientific methodology, guiding the students through **Figure 1-2**, the **Interactivity Scientific Methodology**, and the **Simulation Conducting an Investigation.** Finish the lesson by discussing the word *theory*, and its different meanings in everyday life and in science. Assign **Analyzing Data What's in a Diet?** as homework.

Short on Time? Briefly explain the nature and goals of science, emphasizing that it is a process requiring testable hypotheses and organized data collection. Guide students through **Figure 1-2** and the **Interactivity Scientific Methodology** to cement their understanding of scientific methodology. End the lesson with a discussion on the scientific definition of the word *theory*.

Unit Planner

The **Unit at a Glance** gives a birds-eye view of a unit.

- It shows the lessons broken down lesson by lesson.
- Typically, a day of instruction is a 40- to 50-minute class period.
- The number of days will vary depending on the activities in each lesson.

Unit:				
Problem Based Learning:				
Chapter: **Quick Lab(s), page #:** **Analyzing Data, page #:** **Chapter Lab, page #:**		**Case Study:**		
☐ Author Connection	☐ *Foundations* Workbook	☐ Videos	☐ Interactivities ☐ Graphic Organizer	☐ STEM Activities ☐ HHMI Biointeractive® ☐ Google Expeditions™

Lesson 1:	Connect:
☐ Differentiation:	Investigate:
☐ PBL Connections:	Synthesize:
Time Needed:	Demonstrate:
Lesson 2:	Connect:
☐ Differentiation:	Investigate:
☐ PBL Connections:	Synthesize:
Time Needed:	Demonstrate:

Unit Planner

Lesson 3: ☐ Differentiation: ☐ PBL Connections: Time Needed:	Connect: Investigate: Synthesize: Demonstrate:
Lesson 4: ☐ Differentiation: ☐ PBL Connections: Time Needed:	Connect: Investigate: Synthesize: Demonstrate:
Chapter Close: ☐ Rubrics: Time Needed:	Case Study Wrap-Up: Chapter Assessment: Performance Based Assessment: End of Course Test Practice:

Notes