

BOOK LIST

Biology with Lab

Fall 2024 / Spring 2025

Title	Edition	Author/Editor	ISBN	Available on the Academy's Bookstore?
Exploring Creation with Biology	3 rd	Apologia	978-1946506450	Yes—find it here.
Virtual Lab Simulator* (Digital Access Package through McGraw Hill Connect)		McGraw Hill Connect	<i>Purchasing information provided by instructor when class begins.</i>	No
** Dissection Kit: Intermediate (recommended)		Home Science Tools	#DE-KITINT	No
***Compound Microscope: Amscope B120C or comparable (optional)				No
Microscope Kit and Slides for Apologia Biology (optional)		Home Science Tools	#AM-KTMICR	No

Please note:

- > ***Completing virtual labs is a required part of this course, as well as several hands-on labs designed to be completed at home.** Home labs will be conducted using common house-hold items (supply list will be provided in the course). Please see below for more information.
- > **The Dissection Kit is optional, but recommended.
- > ***In lieu of purchasing a microscope, students may also watch pre-recorded videos that include footage of what they would see through the microscope.
- > Books and materials requirements are subject to change at the discretion of the instructors.
- > Descriptions and disclaimers can be found on the following pages of this PDF.

You can order course materials for competitive prices through our HSLDA Online Academy bookstore. Use the [Textbook Finder](#) to locate the required resources for your courses. Please note

that while most books are available through the bookstore, some titles are not carried and will need to be purchased elsewhere.

For more information

If you would like more information about ordering books for your courses, please contact us at 540-338-8290 (*Monday–Friday; 9:00 a.m. – 4:00 p.m. EST*) or send an email to academy@hsllda.org.

Exploring Creation with Biology by Apologia

DESCRIPTION: *Exploring Creation with Biology* is a high school level textbook that offers an understandable approach to the study of biology. It covers the major topics of biology: the scientific method, the three-domain classification scheme, a study of the organisms belonging to each of the kingdoms of living things through microscopy and dissections, cellular biology, biochemistry, molecular biology, Mendelian genetics, the evidence for biblical creation versus Darwinian evolution, and ecology. The textbook includes engaging and relevant experiments that are easy for students to perform at home.

→ **REASON FOR TEACHING:** This particular textbook was chosen because it teaches a manageable volume of solid biological science from a Christian, biblical-based worldview.

DISCLAIMER: This textbook is solid in its teaching of biblical-based creation. It includes discussions of Darwinian evolution and theories that attempted to blend biblical creation with evolution (old earth theories such as the gap theory, day-age theory, and theistic evolution). It is critical to discuss these theories in class so that students can engage in a thoughtful defense of biblical creation. The text also includes conversations around topics families may have strong views about, like global warming. Students are expected to engage thoughtfully with the content.

Virtual Lab Simulator by McGraw Hill Connect

DESCRIPTION: This Biology with Lab course will include both virtual and at home labs for students to complete. The virtual lab simulator provides students access to award winning laboratory simulations also used by a variety of colleges and universities.

→ **REASON FOR TEACHING:** Virtual laboratory sessions will provide all students with the opportunity to see and virtually interact with equipment they may not have access to

otherwise, like microscopes, testing agents, blood typing, etc. These will allow students to not only be able to do “dry run through” practices if they are wanting to physically do the dissection labs, but also allow students the ability to explore multiple approaches without needing to purchase multiple samples. Additionally, virtual labs provide teachers with a clearer picture of student understanding. The home labs will provide students an opportunity to physically interact with various aspects of their studies. Combined, the virtual and home labs will work together to support student learning in a rich, interactive way.

DISCLAIMER: The publisher, McGraw Hill Connect, is a secular organization so students may hear or see references to evolution. Students will be interacting with a biblical worldview to biology through the selected textbook, live class sessions, and homework assignments. As this is a lab simulator, dissections are included. Students will not physically interact with the chemicals, smells, or sharp tools, but they will be able to see the organism they are dissecting.

Intermediate Dissection Kit: Specimens & Equipment

DESCRIPTION: This kit includes the preserved specimens necessary to complete the laboratory experiments in the text, as well as full-color dissection guides to help students identify anatomical structures. It does not contain a fetal pig, so the fetal pig specimen should be purchased separately.

→ **REASON FOR TEACHING:** This is an optional, but recommended kit, for students wanting to complete more hands-on dissection labs.

DISCLAIMER: Some students may find the dissection of preserved specimens objectionable. Additionally, the specimens are preserved in a toxic holding solution that could be a respiratory, skin, or eye irritant. The Safety Data Sheet (SDS) available from the supplier outlines pertinent safety information. The dissection kit also includes a scalpel blade and handle, which could cause physical injury if used carelessly or improperly.

Compound Microscope with Kit & Slides

DESCRIPTION: This item is a compound microscope with light source and mechanical stage, capable of magnification of 40X up through at least 1000X. The accompanying kit includes all of the prepared slides and slide materials necessary to complete the microscopy experiments in the textbook.

→ **REASON FOR USING:** Video laboratory sessions will be provided for course participants. It would be possible for a student to simply watch the provided videos and be a passive participant in the laboratory experiments. However, the Academy recommends purchasing the microscope and accompanying Microscope Kit and Slides so that students can participate in highly valuable hands-on microscopy work. Students who view the organisms under a microscope with their own eyes will have a deeper and broader understanding of the organisms studied, as well as receiving technical laboratory experience and skills.

DISCLAIMER: A microscope and accompanying materials are a costly investment, but families can share or borrow these items.