



apologia.

LIVE CLASSES

Biology

Mrs. Loisann Fowler

Syllabus

2024-2025

Personal Note

Welcome! If you are receiving this, you have registered for Apologia's Live Class, *Exploring Creation with Biology* with Mrs. Fowler. I am thankful for each one of you and anticipate a great year together! Let me introduce myself. As an 'almost' native Floridian, having moved to Florida from my birth state of Alabama at the age of 3 months, I live in the land of sunshine. I am married and have 5 children—2 boys and 3 girls. We home-educated all of our children K-12, and they are all now flourishing in their adult pursuits, thanks be to God.

I fell in love with science during my first Biology class. After studying Anatomy & Physiology in high school, my eyes were opened to the understanding that there is a Creator behind all the majesty, beauty, and order. Therefore, I earned a Bachelor of Science degree from Auburn University and enjoyed physical therapy work with spinal injury patients after graduating. After being promoted to the profession of motherhood, I used Apologia science with my children and others at home and in co-ops, and I've taught Apologia's Live Classes for many years.

In 2020, I went back to school, and I am now a National Board-Certified Functional Medicine Health & Wellness Coach, which I practice in addition to teaching with Apologia. It is my deep desire that as we look into God's design of the world, we will all come to know and love Him more. I look forward to getting to know YOU as well!

We will be using Zoom for our web-based classroom, and students will find a link to join class each week on their Canvas homepage. I will host an Orientation for parents and students to try it out and become familiar with the basics. This will also be a time to learn my expectations and ask questions. The orientation will take place the week before classes begin on the day/time

for which your student is registered. In early August, I will provide this link on Canvas.

It is my goal to do whatever possible to help students succeed in this learning experience. All of my students will be given every chance to learn and grow for the glory of Christ and the joy of all people. There is a lot to learn, but we take it one bite at a time—“like eating an elephant,” as my husband is known to say.

Please read the following information related to the class at your leisure; most questions will be answered. For now, begin procuring the required materials, and feel free to email me with any questions. I do take June and July off from Apologia but will answer emails as I’m available.

Warmly,

Mrs. Loisann Fowler

Description:

In this course, you will learn about God’s amazing Creation! God is by nature a revealer of Himself that He might be known. One of the ways that He has revealed Himself is through His Creation. So, it is our desire in this course that in addition to all the technical aspects of science we will learn, each student will encounter the glory of our Creator in His Creation. With a strong emphasis on vocabulary and experiments, the course provides the student with a solid background in biology. This course is designed to be the student’s first high school science course (generally, 9th-10th graders). It is a college-prep biology course that provides a detailed introduction to the methods and concepts of general biology. Heavily emphasizing the vocabulary of biology, it provides the student with a strong background in the scientific method, the three domains – four kingdom classification scheme, microscopy, biochemistry,

cellular biology, molecular and Mendelian genetics, evolution, dissection, and ecosystems. It also provides a complete survey of the five kingdoms in Creation. Once taken and understood, *Exploring Creation with Biology* gives an excellent foundation for future science courses.

Prerequisites:

None.

Course Materials:

In most states, 2-3 sciences with labs are required during the high school years to graduate. If you complete ALL of the labs in the text and use a microscope, you may record this as a high school honors science with labs. Additionally, without the student's use of a microscope the high school requirement for a lab science would not be fulfilled.

Required:

- **Dissection Set with Specimens**
 - NOTE: Wait to order the specimens until December 2024 to ensure freshness. I will remind you in November & December, but please put it in your calendar with an alert now.
- **Microscope and Complete Slide Set**
 - **Microscope criteria:** Please find a microscope with at least three separate magnifications and with a maximum magnification of at least 400x AND a “fine focus,” which is separate from the “coarse focus.”
 - NOTE: For my class, students will need access to a microscope. Please do everything possible to borrow or purchase one, as seeing God's microscopic Creation and learning how to use one is

important to understanding the topics covered in this course and in being able to call it a high school science. Some families are able to join with others in sharing the cost and have fun doing the labs together every two weeks or so. Some have gained the ability to use a local school or library's science lab. I commit to praying God will enable each family to procure or gain access to one, so please let me know if you are looking to find one. So far, in my 10 years with Apologia, He has provided for all who have asked.

- **Lab equipment**

- Typical Household Items—Appendix B, in your text, lists the items you will need to perform the experiments in each module. Once you receive your text, I recommend reviewing this list before classes begin so you can obtain whatever isn't in your cabinets.

- **Student Textbook** - [*Exploring Creation with Biology Textbook, 3rd Ed.*](#) by Vicki Dincher

- **Solutions Manual** - [*Exploring Creation with Biology Solutions Manual, 3rd Ed.*](#)

- NOTE: The textbook and Solutions & Tests Manual can be purchased together in a set - [*Exploring Creation with Biology, 3rd Ed. — Basic Set*](#)

- **Notebook** - Either a 3-ring notebook with tabbed dividers or the [*Apologia Biology Student Notebook*](#).

- I do not require the [*Apologia Student Notebook*](#); however, many students find it helpful. In this class, students will learn to write lab reports, some of which will be separate from the [*Apologia Biology Student Notebook*](#). Either way, please keep your notebook as part of your permanent records. It will serve as part of your high school portfolio and proof to a college that you had a lab-based Biology class.

- **Recommended** - [*Exploring Creation with Biology Advantage Set*](#), which includes all three items:
 - [*Exploring Creation with Biology Textbook, 3rd Ed.*](#) by Vicki Dincher
 - [*Apologia Biology Student Notebook*](#)
 - [*Exploring Creation with Biology Solutions Manual, 3rd Ed.*](#)

Assignment Structure:

Experiments Experiments are essential to any Biology course, and this one is no exception. If you cannot or will not comply with this requirement, I suggest you consider our Self-Paced courses, wherein there is no instructor holding the student accountable. In my class, all experiments (minus one or two) are required, including dissections.

One possible way to accomplish this is by joining with one or two other families. This allows students to accomplish the experiments together. Some students participate in a co-op which meets to do the experiments and can provide an enhanced experience. Please note, however, that if these experiments were done a year or more ago, they would need to be repeated for the sake of congruity and full understanding. Having said this, I find that most students do them by themselves at home or with their siblings watching/assisting in wonder. I discuss them in class, give videos for assistance with dissections, and answer any questions, in addition to the fact that our text gives excellent instructions. The level of confidence gained through this activity is remarkable!

Some people struggle with the ethics of completing dissections in science courses. However, dissections are an integral part of a lab-based Biology class. The following are comments from a couple of Apologia staff members to assist in your understanding.

“Dissections may actually contribute significantly to students developing a deeper appreciation for life. With the dissection, you get to see the organs in all dimensions, you get to look at it any way you want and what's better is that you get to touch it. This teaches students to appreciate what every single organ does for the body. Students who never see the inside of a real animal may regard organisms (including themselves) as a virtual reality as thin as a photo or as dimensionless as the computer screen.”

-Apologia Online Academy Director, Larry Blythe

“There is an amazing awareness of God’s power of creation as we observe the various parts of living organisms. As you identify that the heart is made of tough and muscular material and how it is centrally located to the body versus the softer kidneys or the other organs and their placement, you begin to ask yourself, “How did these cells ‘know’ to form this as they divided? How do heart cells know to be heart cells, and how do liver cells know to be liver cells? What is driving this complexity?” This experience drives us to a better understanding of the power of our Creator. Also, it prepares us in many ways for adulthood. Watching a video of a dissection removes us from deep observation. We look at the images and may just think everything is “gross.” But when you are doing a dissection for yourself, you are more aware of what living beings look like on the inside. You are learning more than you realize. As a parent, I cannot tell you how many times it was helpful to me to know

and understand what makes up our bodies. Through stitches, broken bones, other injuries, and sicknesses, I have a greater understanding of how to care for my children and to be there for them as they are scared with blood running down their forehead or with swelling ankles.”

- Sherri Seligson, Apologia author and video instructor

Formal Lab Reports—In the fall semester, students will learn how to write a Formal Lab Report by working on sections at a time and submitting them for feedback. Additionally, students will be asked to submit pictures of experiments and dissections or pieces of their written work in a few selected labs for a grade. Then, in the spring semester, students will complete one Formal Lab Report for submission and grading. We will cover the format and expectations during class.

Grading Categories

- 35% Tests
- 30% Lab reports
- 35% Notebook

Due Dates and Late Policy:

Going on vacation? I have my assignments on Canvas for no less than the next month. These will be tweaked from time to time, so if you plan to go out of town, know that as long as a parent tells me 1-2 weeks ahead, you will only be responsible for the work already listed at that time. I encourage you to get ahead before the absence, especially because a vacation is usually in the

works way ahead of time, giving you plenty of time to finish homework before it is late. This kind of time management allows you to enjoy the vacation fully.

Sick or have a family emergency? Let me know (if appropriate) so we can pray in class for you, or at the very least, I can pray privately! You will be given 1 extra week after you get back (or more, if necessary) to submit any outstanding homework/test and have it count as “on time.”

Deadlines for ALL on-time work will be posted on Canvas during each semester. Late deductions of 10% will apply for work turned in after the deadline. Please note: this implies correctly that I do accept late submissions. Extensions not due to sickness or a family emergency may be requested by the parent at least 5 days before a due date. This is the last option, however, and the student is expected to plan ahead as much as possible. Lessons in time management abound!

Class Canvas Portal:

Students will access the course through the Canvas course portal:

<https://apologia.instructure.com/>.

Weekly Live Lecture:

Tuesdays, 9:00 a.m. EST

Tuesdays, 1:00 p.m. EST

Conduct & Academic Dishonesty:

Student Responsibilities

1. Ask God for help to do your best every day.

2. Attend Orientation—This is required for students and at least one parent. I prefer you attend live, however, if scheduling does not permit, I will post a recording of it on Canvas later that week. I will provide the link information in early August. Your orientation will be on August 13, 2024, at your scheduled class time, either 9:00 a.m. or 1:00 p.m. Eastern.
3. Accomplish all required work for optimum learning.
4. Be prepared for class—even recorded class students are expected to do the required reading before watching the class recording.
5. Monitor the student portal, Canvas, for assignments and due dates.
6. Be in live class promptly. (This does not apply to recorded students.)
7. If it is necessary to miss a live class, watch the recording of said class.
8. Submit assignments promptly and with integrity.
9. Communicate with your parents and Mrs. Fowler throughout the year about any needs or problems you may have and about the new and remarkable things you learn.
10. Have as much fun as possible learning new things!

Parent Responsibilities

1. Communicate with me concerning any needs or extenuating circumstances.
2. Attend the Orientation—This is required for students and at least one parent. I prefer you attend live, however, if scheduling does not permit, I will post a recording of it on Canvas later that week. I will provide the link information in early August. Your orientation will be on August 13, 2024, at your scheduled class time, either 9:00 a.m. or 1:00 p.m. Eastern.
3. Pray for your student(s) and me, please.
4. Help your student acquire organizational skills and good study habits. (My holding your student accountable to ‘my’ due dates will assist you in this).

5. Check your student's notebook and submit the point value earned on Canvas every 3 modules. (I will give you a rubric and lots of instruction on this in August and throughout the year; it's easy, I assure you).
6. Proctor your student's tests on Canvas.
7. Assist your student in procuring the necessary experiment items in a timely fashion.
8. Enjoy all that your student learns this year and the lively discussions that ensue.

Help and Questions Outside of Live Class:

Every question is a good question, so please feel free to communicate with me. I am ready to help via email generally anytime from Monday – Thursday, 9:00 a.m. - 5 p.m. EST, and early mornings on Fridays. You can contact me at MrsFowler@apologia.com. Weekends and evenings are family time, so I will normally not be available. Thank you for respecting this policy. Although I occasionally (like you) need to catch up during these times, I strongly encourage you all to set aside time each week not to do school to refresh your souls!