

Daily Lesson Plans
for
Exploring Creation with
Biology
(Second Edition)

My Father's World[®]

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Exploring Creation with Biology, Second Edition

Apologia has earned the reputation of being the premier science course for college-bound students. The text is written in a friendly, conversational style and is easy to understand, even for parents with minimal science background. The simple experiments, user-friendly format, and personal approach set it apart from standard textbooks. The program is written from a Christian worldview and takes a balanced approach toward controversial subjects, examining all viewpoints while explaining the scientific facts behind differing theories.

Apologia science courses appeal to both parents/teachers and students because they are easy to understand, practical, and organized. They also encourage critical thinking skills in an interesting format. We are so confident in this science course that it is the only one we carry for 7th grade through high school.

Dr. Jay L. Wile holds a Ph.D. in nuclear chemistry and a B.S. in chemistry from the University of Rochester. A former university professor, he has won several awards for excellence in teaching and has presented numerous lectures on the topics of nuclear chemistry, Christian apologetics, homeschooling, and creation vs. evolution. In addition, he has published thirty articles on these subjects in nationally recognized journals.

Marilyn Durnell holds a Bachelor of Science degree in Medical Technology from the Indiana University School of Medicine. For many years, Marilyn has taught elementary and secondary science and math to classes of home schooled children, and tutored children and adults. Marilyn and her husband Stan home schooled seven of their eight children, with the goal of nurturing them so that the character of Christ might be developed within them.

How to Use These Plans

Before beginning this course, parents need to read thoroughly the **TEACHER'S NOTES** at the beginning of *Solutions and Tests for Exploring Creation with Biology*. Students need to read thoroughly the **STUDENT NOTES** at the beginning of the textbook. (Note that the word "lab" refers to the experiments in the text.)

Schedule science four days a week. Monday through Thursday works best, with Friday free or used for catch-up, review, or tests as needed. If you find that a lesson is too lengthy, simply end the lesson and resume the following day. By Friday you should catch up with the week's lessons.

Plan to spend about two weeks on each module, except **MODULE #6**, which may take three weeks to complete if you use a week for review, as the text suggests. This gives you 33 weeks for science (or 35 if you use the quarterly tests) – thus allowing a few weeks for review or catch-up if needed.

For record-keeping purposes, use the line to the left of "Day 1," "Day 2," etc., to write the date the student completes each lesson.

A "Test and Experiment Scores" sheet is provided so that all test and experiment scores can be recorded in one place for a permanent record. Read the paragraph on page v in *Solutions and Tests for Exploring Creation with Biology* regarding *cumulative tests*, which are quarterly tests. If you choose to use the cumulative tests, plan to use one day for review, and one day for the cumulative test. These extra days are included in the day count in the lesson plans, but are optional.

CD-ROM Multimedia Companion

The CD provides additional visual instruction, especially valuable for students who are more visually oriented, for students wanting a richer science course, and for parents who want extra help in presenting information. The components of the optional CD-ROM Multimedia Companion are scheduled within these lesson plans. **Each CD item is marked with an asterisk (*).** Key vocabulary words are listed at the *beginning* of the lesson plans for each module; the pronunciations are found on the CD. The other items marked with an asterisk (*) are multimedia instruction, examples, figures, and experiments. **The CD enhancements of the experiments are to be viewed *following* the experiments.**

Lab Supplies

This course includes laboratory experiments for you to perform. The experiments come in **three types**: household experiments, microscope experiments, and dissection experiments. The **household experiments** use only household equipment, and you should definitely plan to do these. The **microscope labs**, which require expensive equipment (“Lab Set with Prepared Slides & Microscope”) are also beneficial but not required. The **dissection experiments**, since they require an additional kit (“Dissection Lab with Specimens”) are beneficial but not required. If you plan to do the dissection experiments, order the dissection kit around the time you start module #9 because it is not used until module #11, and the specimens last only about 6-8 months.

The microscope and dissection equipment may be ordered from:

[*My Father’s World provides the ordering information in the Lesson Plans*]

Besides the lab kit, you will need to gather common items from home and purchase some supplies from local stores.

For your convenience we have compiled a master list of all lab supplies needed for the entire year. (See “Master List: Lab Supplies to Purchase for the Year” in these lesson plans.) The master list includes a list of the items found in the laboratory equipment sets, and the items you will need to purchase at a store, but does not include items commonly found at home, such as scissors. We recommend that you purchase all of these supplies and the laboratory equipment now, before beginning the school year, so that they will be on hand.

We also list lab supplies for each module at the beginning of each module plan, if you prefer to purchase supplies as needed. Materials are divided into several categories: **M** refers to items used in **microscope experiments**. **D** signifies items used in **dissection experiments**. Unlike the master (year’s) list, the lab supply list for each module does include items commonly found at home. Reminders to purchase and gather lab supplies are given for each module.

Master List: Lab Supplies to Purchase for the Year

Note: The Master List does not include perishable items that should not be purchased far in advance, such as eggs and butter, or items that you certainly already have, such as water.

[*My Father's World has reorganized the Apologia supply lists to show an organized master list ordered by the store type most likely to carry the items. Following is an abbreviated sample of the lists.*]

Grocery

- uncooked white rice
- baking soda
- toothpick
- small box of Jell-O® gelatin mix – any flavor
- ... (plus 18 other items not included in this sample)

Hardware

- tape measure
- garden gloves
- flashlight
- ... (plus 3 other items not included in this sample)

Office Supplies

- colored pencils
- plain white sheet of paper
- magnifying glass
- ... (plus 3 other items not included in this sample)

Drugstore

- cotton swabs
- magnifying glass
- 3 coffee mugs
- rubbing alcohol
- ... (plus 12 other items not included in this sample)

Library

- bird field guides
- ... (plus 2 other items not included in this sample)

Laboratory Equipment Sets

- microscope
- lens paper
- slides
- eyedropper
- ... (plus 28 other items not included in this sample)

Other

- binoculars
- measuring cups from ¼ cup to 1 cup and measuring spoons including tablespoon & teaspoon
- small bottle
- blender
- ... (plus 13 other items not included in this sample)

Test and Experiment Scores
Exploring Creation with Biology
by Dr. Jay L. Wile and Marilyn F. Durnell

Name _____

	Date	Score	Parent Initial
MODULE #1			
Experiment 1.1	_____	_____	_____
Experiment 1.2	_____	_____	_____
Test	_____	_____	_____
MODULE #2			
Experiment 2.1	_____	_____	_____
Experiment 2.2	_____	_____	_____
Test	_____	_____	_____
MODULE #3			
Experiment 3.1	_____	_____	_____
Experiment 3.2	_____	_____	_____
Experiment 3.3	_____	_____	_____
Test	_____	_____	_____
MODULE #4			
Experiment 4.1	_____	_____	_____
Experiment 4.2	_____	_____	_____
Experiment 4.3	_____	_____	_____
Test	_____	_____	_____
Quarterly Test #1	_____	_____	_____

[All modules are listed in *My Father's World Lesson Plans*]

Module #10: Ecology

- Look again at the lab supplies list for Module #10. Be sure you have already purchased any needed supplies.
- Also look at the lab supplies list for Module #11 (which you will need in two weeks). Plan to purchase any supplies you do not already have.

Lab Supplies for Module #10

Purchase or gather:

- thermometer (It must be able to read temperatures from room temperature to at least 100° F. The smaller the thermometer, the better.)
- large, clear Ziploc® freezer bag (It must be large enough for the thermometer to fit inside once it is zipped.)
- plastic 2-liter soda bottle
- vinegar
- baking soda
- teaspoon

- _____ Day 77 pages 299-305a
- *Listen to the following vocabulary words on the CD if you need help with pronunciation: anemones, biome, goby, tertiary, transpiration, trophic.
 - Introduction
 - Energy and Ecosystems
 - ON YOUR OWN 10.1, 10.2, 10.3
- _____ Day 78 pages 305b-309a
- Mutualism
 - *video about clownfish and sea anemones (FIGURE 10.4) on the CD
 - ON YOUR OWN 10.4
- _____ Day 79 pages 309b-313
- The Physical Environment
 - ON YOUR OWN 10.5, 10.6
 - The Water Cycle
 - *animation about the water cycle (FIGURE 10.7) on the CD
 - ON YOUR OWN 10.7, 10.8
- _____ Day 80 pages 314-318
- The Oxygen Cycle
 - *video about the oxygen cycle (FIGURE 10.9) on the CD
 - ON YOUR OWN 10.9, 10.10
 - The Carbon Cycle
 - *video about the carbon cycle (FIGURE 10.10) on the CD
 - EXPERIMENT 10.1
- Enter Experiment score on Test and Experiment Scores form.

- _____ Day 81 pages 319-322a
- (Continue reading The Carbon Cycle at the top of page 319.)
 - ON YOUR OWN 10.11, 10.12
- _____ Day 82 pages 322b-324
- The Nitrogen Cycle
*animation about the nitrogen cycle (FIGURE 10.12) on the CD
 - ON YOUR OWN 10.13
 - Summing Up
- _____ Day 83 pages 327-328 STUDY GUIDE FOR MODULE #10
- _____ Day 84 TEST FOR MODULE #10
Enter test score on Test and Experiment Scores form.

SAMPLE