

Exploring Creation with Physical Science

Mrs. Becky Edmondson

mrsedmondson@apologia.com

Course Syllabus

2024-2025

APOLOGIA.COM/LIVE

Description:

This course, Exploring Creation with Physical Science, is designed to be the last science course students take before high school biology. Thus, we generally recommend it as an 8th-grade course. However, students may use it for their 9th-grade coursework. The text discusses topics such as atomic structure, the periodic table, chemical bonds, reactions and energy, motion, forces, energy, waves and sound, light, electricity and magnetism, Earth's structure, weathering, and atmosphere. The author also addresses the environmentalist movement.

The course contains multiple experiments, all of which can be performed at home using everyday household items. These experiments will be an excellent way of aiding in and cementing the student's understanding of the concepts at hand. Students will also be given a thorough introduction to formal laboratory reports, which will help them develop their skills in technical writing.

Upon successful completion of this course, students will:

- Understand the major principles of the physical sciences.
- Appreciate and be able to explain common scientific phenomena encountered daily.
- Know how to convert between common scientific units.
- Be able to explain a scientific problem in terms of the scientific method.
- Improve technical writing skills through the writing of formal scientific reports.



Prerequisites:

7th-grade math

Course Materials:

- <u>Exploring Creation with Physical Science, 4th Edition Textbook</u> (releasing Spring 2024) **Note**: Older editions of Apologia's *Exploring Creation with Physical Science* will not work with this class.
- <u>Exploring Creation with Physical Science, 4th Edition Student Notebook</u> (releasing Spring 2024)
- <u>Exploring Creation with Physical Science, 4th Edition Course Guide &</u> <u>Answer Key</u> (releasing Spring 2024)
- Lab equipment The Lab Supply List in the back of your text lists the items you will need to perform the experiments in each module. Please look at this list ahead of time to make sure that you have all the supplies needed before each Module. The experiments use mostly everyday household items, so there is no need to purchase laboratory equipment for this course.
- Basic calculator
- Colored pencils to use for drawings of set-up in lab notebook, etc. (optional)

Assignment Structure:

Activity	Percent of Grade
Online Module Exams	40%



Online Homework	5%
Formal Lab Work	30%
Notebook Checks	25%
Total	100%

Online Module Exams

We will complete a module every two weeks. The exam for that module will be due on the Wednesday following the second week of each module. Exams will consist of a combination of questions formatted as multiple choice, true/false, matching, calculations, fill-in-the-blank, and short answer/essay questions. If a problem requires a calculation, students must show their work in the provided textbox where appropriate.

All tests are to be taken closed book/closed notes and without the help of outside sources (unless previously cleared with me by the parent for students with an IEP or equivalent). It is the responsibility of the parent(s) to ensure students are not utilizing outside help while taking the tests. Proctoring is recommended.

Students are allowed to use a calculator, a periodic table (when needed), and a 3x5-inch notecard as a crib sheet for formulas only on the exam. The 3x5-inch notecard may have any formula from the book written on it. The crib sheet **cannot** contain any additional notes from the module or information about scientific units!!

Laboratory Notebook

As students read the modules in the textbook, Assigned Experiments and lab reports should be completed (though only 2 practice reports in the



form of a tutorial will be turned in to me formally. We will go over expectations thoroughly in class).

Completing the lab includes performing the experiment and writing an informal lab report in the student's laboratory notebook (*Exploring Creation with Physical Science* Student Notebook).

The format for an Informal Lab Report can be found on your Canvas course page.

At the end of each quarter, parents will check the student laboratory notebooks for completion. I will email instructions for this process when the time comes for a notebook check to be turned in.

NOTE: If you live in an area where certain equipment/supplies cannot be obtained, the lack of availability of experimental supplies will be taken into account. Parents should e-mail me with these extenuating circumstances as they arise.

Formal Laboratory Reports

In addition to the Informal Lab Reports (simplified reports to be kept in the Student Notebook as explained above), students will be required to complete a Formal Laboratory Report using MLA formatting. This tutorial provides video instruction, written instruction, and an example for each section of the lab report. This assignment will also be covered thoroughly in class before students are expected to complete it. My purpose is to wade them into the world of lab reports!

Daily Notebook

Students should keep a daily notebook that includes the following work



from each given module:

- **Required**: Work and answers to the On Your Own (OYO) questions
- **Required**: Work and answers to the Study Guide Questions
- Optional but recommended: Work and answers to the Module Test found in the Solutions and Tests Manual
- Optional but helpful: Notes from reading the module.
- Optional but helpful: Notes from attending lectures—Even if students are not note takers, they should always have their notebooks on hand to take notes during class. Important information for tests may be covered during this time!

Please Note: You may use these tests to study for MY module exams which will be taken within our student portal. I refer to them from time to time as "Practice Tests," though they are not labeled as such.

If students correct their answers in different colored ink, this will help when studying!

Notebook Checks

At the end of every three modules, parents will check their students' notebooks for completion, not for the **accuracy** of the answers.

Students are highly encouraged to check their own accuracy by referring to the Course Guide & Answer Key.

I will email instructions for notebook checks when these assignments are due.

Note: All the assignments mentioned above are included in the required *Exploring Creation with Physical Science* Student Notebook.



Extra Credit

The instructor reserves the right to offer or not offer extra credit opportunities in the form of additional exam questions, homework assignments, etc.

Due Dates and Late Policy:

All due dates are labeled on the course calendar found on your Canvas Course page. Students will be reminded of due dates at the beginning of each lecture.

Students are responsible for keeping track of all scheduled due dates and are **responsible for any changes announced during lectures and/or on Canvas.**

Exams are due by 11:59 p.m. EST on the Wednesday **following** the completion of a module.

Exams can be accessed on the Wednesday of the second week of each module. This means that students will have a week to open and complete a test after it is posted. I do not recommend accessing the exam until students have attended or watched the recording of the second lecture of each module. This way, students will not miss anything covered in class, as they are responsible for all lecture material.

A 10% late penalty will be applied for exams turned in up to a week late, and another 5% late penalty will be added thereafter.

I do not approve student extension requests. Parents must email requests for extensions for situations beyond the student's control. If an



extension is requested, please explain the situation in the email. If the extension is approved, the late penalty will be waived.

Class Canvas Portal:

Upon registration for this course, you will be given access to my Physical Science Student Portal on Canvas.

Through this portal, all students can log into the live lectures, view important class information, submit course assignments, and view their grades.

NOTE:

- Live, online lectures will be presented through Zoom.
- You do not need to download any application-specific software on your computer to attend the lectures.
- It is recommended, however, that the connection be made from a device with Wi-Fi or Ethernet access.
 - Ethernet access will give students the highest quality for the live class.

Weekly Live Lecture:

Each section (live or recorded) will follow the live lecture schedule in the table below:

Option Number	Lecture Day	Lecture Time
1	Tuesdays	9:00 AM – 10:30 AM(EST)
2	Tuesdays	11:30 AM – 1:00 PM (EST)
3	Thursdays	9:00 AM – 10:30 AM (EST)



A detailed calendar with due dates is available on the course Canvas page.

Live Lecture Attendance Policy:

The instructor does not require attendance at the online lectures but highly recommends that students attend as many of the live lectures as possible. Having said this, all lectures are recorded and posted on Canvas if an absence from class is necessary or for those whose schedules do not allow them to attend the live class. As registered academy students, you have access to the videos for the entire year.

Please Note:

- If a class is missed, students are required to listen to the recording before the next class if possible (or as soon as possible).
- Recorded/Graded Students are also required to watch every recording.

Critical course information will be provided during the lecture, and all students are responsible for this information even if they are not present. The instructor will discuss upcoming due dates, holidays, and exam averages during class. Additional information and review are also provided beyond the scope of the text during the lecture, for which students may be held responsible on the exam.

Of course, recordings are also a great tool when you need to re-listen to parts of the lecture to reinforce your understanding of any given concept.



Academic Dishonesty:

Academic dishonesty is any type of cheating that occurs on any exercise related to this course. It can include plagiarism (the use of anyone else's work that is not your own). No form of cheating will be tolerated! Cheating includes but is not limited to copying homework, falsifying reasons for missing class, copying other students' exams/homework/answers, impersonating a parent, having someone else log in to Canvas to complete material on a student's behalf, or plagiarizing material someone else has written and claiming it as your own. **Do not copy and paste information from the web in your lab reports or tests!**

All course assignments must be written in your own words. Plagiarism will not be tolerated, including verbatim copying of text from the internet and/or paraphrasing information from a source and not citing it.

Be sure to cite a reference for any information that you did not conceive for the first time as a scientific pioneer! ©

Assignments that have been cheated on will receive 0 points, and the parent will be notified.

Helpful Tips for Success in Physical Science:

- Do not miss class.
- For Live Students: The live lectures allow students to interact directly with the instructor, and any confusion can be cleared up early during the lecture. Some topics may be expanded upon during lectures to help students better understand and be better prepared for the module



exam. Specific details for assignments may be covered in class that you do not want to miss!

- For 'Recordlings' (my pet name for recorded/graded students): Be sure to watch the recording of the live lecture each week for the same reasons stated above. If there is any confusion on a given topic, be sure to email me with your questions!
- Read the material before class or watch the recording. Emphasis is placed on reviewing material from the book, followed by practice problems when applicable. Historically, students get more out of lectures if they have read the material first and come prepared with questions about material that may have been confusing. Students also tend to benefit more from in-class practice problems when they have read first.
- Keep up with all Daily Notebook work. Your notebook check is an easy "A" WHEN you keep up with your work, but it can be so hard to catch up once you get behind!
- Turn in all exams and assignments on time. Late turn-ins are the easiest way to lose points from your grade. This Physical Science course is a cumulative study, so staying on task and up to date is critical for success!
- Ask questions during and after the lecture (Recorded/graded students, email me). Again, this course will build upon previous knowledge as we progress through the material. It is important to ask questions as soon as something is confusing so that you do not become lost when more complex material is covered down the road. The only "dumb" question is the one not asked!
- Flashcards are your friend. I encourage students to make flashcards to help them remember key terms, concepts, and units. <u>Quizlet.com</u> is a



wonderful site that has flashcards and study games preprogrammed for this course.

- **Keep an updated equation sheet**. Keep a single 3 x 5 card updated with equations as you come across them. The sheet will be an excellent reference for you and useful to look back upon in other science courses.
- **Start your laboratory reports ASAP**. If you are working on a module that contains a Formal Laboratory Report, get started on the experiment and the report as soon as possible. Doing so will give you adequate time to ask questions and proofread!
- **Take advantage of bonus points**. When bonus points are offered in the form of additional assignments, exam questions, or discussions, students should take advantage of these opportunities. Keep an eye out for them!
- Use the Recordings as a study tool (even if you are a live student)! One of the beauties of having access to the recordings of your classes is that you may go back and view the explanation of any subject/concept that you may be struggling with. Remember, you may fast forward/rewind to the places in the recording where your trouble spots may be without having to watch the entire recording!

I look forward to a wonderful year together!

Mrs. Edmondson (Mrs. E)

