



Exploring Creation with Physical Science

Mr. Blythe, M.A. Apologetics/Theology/Philosophy

MrBlythe@Apologia.com

Course Syllabus

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Description:

This course, Exploring Creation with Physical Science, is designed to be the last science course a student takes before high school biology. Thus, we generally recommend it be taken in 8th grade. 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 and cementing the student's understanding of the concepts. Students will also be given a thorough introduction to formal laboratory reports, which will help them develop their skills in technical writing.

Course Objectives:

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:

1. The ***Exploring Creation with Physical Science, 4th edition, Advantage Set***, which includes the following:
 - *Exploring Creation with Physical Science, 4th Edition*, textbook. Dincher, Vicki. (**Note: Older editions of Apologia's *Exploring Creation with Physical Science* will not work with this class**).
 - *Exploring Creation with Physical Science, 4th Edition, Course Guide & Answer Key*, Dincher, Vicki
 - *Exploring Creation with Physical Science Student Notebook*, 4th Edition, Dincher, Vicki
2. **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 mostly use everyday household items, so there is no need to purchase laboratory equipment for this course.
3. **Basic calculator**
4. **(Optional) Colored pencils**—to use for drawings of set-up in lab notebook, etc.

Assignment Structure:

Activity	Percentage of Grade - Points
Online Module Exams	40%
Online Homework	5%
Formal Lab Work	30%
Notebook Checks	25%
Total	100%

Online Module Exams:

We will complete one 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.

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 and a periodic table (when needed), and a **3 x 5 inch notecard as a crib sheet for formulas only** on the exam. The 3 x 5 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).

Completion of the lab includes both performing the experiment and writing an informal lab report in the laboratory notebook kept by the student (*Exploring Creation with Physical Science*, 4th edition Student Notebook).

An Informal Lab Report Format 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: The lack of availability of experimental supplies will be taken into account if you live in an area of the world where certain equipment/supplies cannot be obtained. Parents should Email me with these extenuating circumstances as they arise.

Formal Laboratory Reports:

In addition to the informal lab report (simplified report to be kept in the Student Notebook as explained above), students will be required to complete a formal laboratory report using MLA format.

In this tutorial, students are provided with video instruction, written instruction, as well as 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:

- Work and answers to the On Your Own (OYO) questions
- 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* that comes with your Text. **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!
- **(Optional but helpful for some)** Notes from reading the module
- **(Optional but helpful for some)** Notes from attending lecture

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!

Notebook Checks:

At the end of every 3 modules, parents will check their student's notebooks for **completion**, not the accuracy of the answers. **Students are highly encouraged to check their own accuracy by referring to the *Course Guide & Answer Key* which comes with their text.** I will email instructions for Notebook Checks at the time when these assignments are due (all are percentage grades, NOT letter grades.)

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 pm on the Wednesday *following* the completion of a module. Exams can be accessed the Wednesday of the second week of each module. This means from the time that a test is posted, students will have a week to open and complete it. 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 late penalty of 10% will be applied for exams which are turned in up to a week late and another 5% late penalty will be added thereafter.

I do not approve extension requests made by students. Any request for extensions must be made by a **parent** via email for situations which are 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 were given access to my Physical Science Student Portal on Canvas.

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

NOTE:

- Live 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 connection is made from a device with Wi- Fi or Ethernet access.
 - Ethernet access will give students the highest quality for the live class.
- You should use a desktop or laptop computer for the best experience. Devices are great but limited in many cases

Weekly Live Lecture:

Our class will meet for live lectures via ZOOM once a week. If you cannot attend the LIVE class, you may watch the RECORDED class but do so within a day or two of the LIVE class!

Option Number	Lecture Day	Lecture Time
1	Wednesdays	10:30 AM – 12 :00 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 of the online lectures, but highly recommends 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, it is required that students listen to the recording before the next class if at all 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 up-coming 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 for 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 concepts.

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 which 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 test!**

All course assignments must be written in your own words. Plagiarism, including verbatim copying of text from the internet and/or paraphrasing information from a source and not citing it, will not be tolerated. 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 you to directly interact 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 Recordings (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 watching the recording. Emphasis is placed on going through 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 over 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. This 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. The easiest way to lose points from your grade point percentage (no letter grades are given) is by turning in tests and assignments late. 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 lectures (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. [Quizlet.com](https://www.quizlet.com/) 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 or exam questions, students should take advantage. 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!

Mr. Blythe (Mr. B)