

Classes for 2021-2022: Biology, Chemistry, Physics, and also the 2<sup>nd</sup> year courses. **Course descriptions are on pages 3 and 4**

Math also available. Class schedule will be determined based on families' needs

My "Superior Scientist Award" is presented at graduation to any student who earns 97% or higher in 3 or more science classes.

**Please read the info below, even if your child was in class last year, as some changes have been made.**

**Also, parents: PLEASE read the assignment e-mails each week, as there is generally important info there for you as well.**

**General Information for Science Classes (payment/barter ideas are on page 2, along with important test-taking note)**

Who is teaching the classes? Linda Edwards is a secondary Math and Chemistry teacher (originally certified in TX, PA, and SC and permanently certified in TX). She did her student teaching in Texas, taught for 5 years in Pennsylvania, and also for 5 years in South Carolina (all at public schools). Linda also does private tutoring and since 2002 has continuously taught homeschool classes. She homeschooled her two sons (both are now college graduates).

Contact info: cell 864-313-3212 saddletreescience@gmail.com

**Class Behavior:** All students are expected to exhibit exemplary, respectful behavior. Disruptive or rude students will not be tolerated. Major disruptions are cause for immediate dismissal. If a student causes minor disruption, he'll be given a warning. If disruption continues, he will be dismissed to the porch (so far this has never had to happen—don't be the first). **Students may NOT use or hold cell phones during class. Phone calls from a parent may be answered.**

**Dress Code:** Modesty will be maintained at all times. Think "lots, loose, and long." Clothing with a low neckline in front or back may not be worn. No tank tops or tube tops. Lab work often requires bending over, and we want our young men to have their minds on the appropriate science topic. Midriff area must be covered at all times (including when sitting down or bending over), and undergarments should never be exposed. Keep shorts to a modest length. Long pants are preferred. If a student comes to class with attire which is not appropriate, he/she will be lent a large size t-shirt to wear over his/her clothing. **Ladies, before coming check your neckline in the mirror while bent over. If you have to put your hand to your neck to do lab, it's too low. Don't tempt a young man to sinful thoughts. They can't help but notice, so be responsible to help them.**

There are **4 payment options** for the science classes, one of which is the bartering system.

See details below the following benefits chart on page 2.

**Chemistry and Physics (first year or advanced) all have a \$50 lab fee. The Biology (first year or advanced) lab fee is \$80.**

**Lab fees are the same regardless of which class payment option is chosen. Lab fees are not refundable or transferable.**

#### Benefits

Linda will:	Payment Option 1, 2 or 3	Payment Option 4
Cover entire text plus honors material	X	X
Do all labs in class	X	X
Provide all lab equipment and supplies	X	X
Provide special lab report sheets for quantitative labs	X	X
Provide spreadsheet for personal record-keeping	X	X
Provide an e-mail each week detailing the week's assignments	X	X
Grade Tests and Lab Reports*	X	
Give Progress Reports	X	
Give Final (suggested) Grade	X	
Provide help during the week via phone and e-mail**	X	X
Provide minor help before or after class	X	X
Provide extra tutoring if needed (on class day or otherwise)	X	
Provide help completing labs during extra hour after class	X	X
Provide recording for you if you need to miss class	X	can pay extra for this
Photo documentation of labs, etc transferred to YOUR flash drive	X	X
Write references for college and/or scholarships	X	cannot since I didn't grade

\*Grading: To best utilize class time, all tests will be taken at home **under parental supervision**. Linda will grade all tests and labs and maintain total grades. If you prefer to do the grading yourself, that is fine, but realize I can only give a Superior Scientist Award or scholastic-type references if I have done the lab/test grading. Partial credit will be given on applicable problems. Credit will be given for homework, but she will not grade that---parents will be responsible to see that it is completed and that answers are compared to correct answers. Parent verification forms for homework will be provided. **If a student makes a test grade below a B, Linda will generally take a look at the homework for that module. Students who truly do the homework as instructed and earn 100% on the assignments generally earn an "A" or "B" on the test.**

**Due dates** will be given for tests and lab reports, however homeschool flexibility will be maintained. If for some reason a student needs more time to complete tests, there is no penalty. **Lab reports need to be completed within a week or two of doing the lab, while fresh in the student's mind (unless the parent chooses to request an extension—parents always have final say). An hour after each class will be reserved for Linda to help students complete lab reports (or other work as needed). Late lab reports may have the grade reduced by 10%.** Parents should make sure that students are working up to their ability and know what their child has or has not completed. A spreadsheet for personal record-keeping will be provided at the beginning of the year.

\*\*Help/Absences: Students may call or e-mail at any time with questions. If Linda is sick or must be out of town, class will be canceled. If a student is sick or must be out of town, then footage of the class content may be borrowed (note: advanced classes may not yet have footage available, but those classes have more flexibility due to fewer students). **You** can bring a flash drive (**at least 8 GB available**) to copy raw footage. Please, when finished watching, delete footage from your drive/computer. It should not be shared with anyone without Linda's permission. If a number of the class must miss for some reason, the class can decide whether to cancel or not. If class must be canceled, it will be made up either with extra class hours, an alternate day, or at the end of the year. Class and teacher will agree upon time off for holidays.

**Test-taking:** Several students (truly wonderful Christian students) in the past have succumbed to the temptation of cheating. Don't assume your child is perfect and not a sinner. Please make sure that when your child takes a test, he/she **does not have access** to the textbook or the test solution book, notes, homework, **phone**, or **internet**. He should only have the test, extra paper to show work, writing utensils, calculator, and any reference material allowed for that test (such as the periodic table). **Also a student should not be able to see any test before sitting down to take it.** That defeats the integrity of the test if the student sees what questions are on the test. When a test is sent via e-mail, **please don't** give it to the student to keep in his notebook. Either a parent should keep it put away, or don't print it until he/she is ready to actually take the test. Tests must be proctored by a parent, and then given directly to Linda. The student should not put the test into his/her notebook (as no changes are permitted).

Note: Any parent may audit or even "take" their child's course for free. A parent may attend any or every class if desired

#### Payment:

Class Fee---see 4 options below There are NO registration fees.

Materials/Lab/Misc Fee—Chemistry or Physics \$50 per student Biology: \$80 per student Lab fees are not refundable or transferable.

**Important Note:** "Handouts" will generally be sent via e-mail in advance of the class for which it is needed. Students are expected to print them out and bring them to class. **If you cannot print something (broken printer, etc), let me know at least one day in advance, and I will print you a copy. If a student comes to class and forgets to bring the needed handout and did not request it in advance, he will likely have to do without, as I will NOT take class time to make copies.** This has been a real problem in some classes. I'm thinking about possible solutions to this.

#### Payment Option 1: Bartering (my time for yours)

I ask for 64 hours of your time (Class time alone is well over 64 hours, especially chemistry. In addition, I'm grading, preparing, updating, setting-up and cleaning-up labs, tutoring, etc). If you choose bartering, each family will make their individual arrangements with me. The list below is not all-inclusive. If you have an idea of something else you'd like to do, let me know. Also, you can opt for different jobs---you don't have to do the same job each week. Your child can do the bartering only if he/she is responsible and can do a good job without my constant monitoring.

Keep a log of your hours worked [or food preparation---one 4-serving meal or two 2-serving meals equals one week of class].

Some parents prefer to do a job during class time each week, if they are there with their student anyway. Some might want to do some work during the summertime to lessen the load during the school year or do jobs that require various blocks of time.

#### Ways to "pay" your 64 hours (not an all-inclusive list)

##### **I could use help with weeding and trimming during the growing season.**

Prepare and send a simple homemade meal (will need to limit this option) \*see note on page 5

Would LOVE **homemade, home-ground** whole-wheat or whole-grain bread on occasion.

Meal prep (peeling potatoes, chopping onion, cutting fat and gristle off of raw meat, etc)

Dust and vacuum where needed

Clean kitchen floor and/or do other house cleaning (lots of possibilities here, inside and out)

Fold and/or Iron clothes

Mending or sewing, as need arises (also could be done at your home, as desired)

Yard work (mowing, raking, picking up sticks, rocks, etc)

Painting barn, etc and/or waterproofing porch, deck, picnic table, etc.

Outside/inside chores (cleaning up, deck-cleaning, odd painting jobs, helping Corwyn with fence-building, etc)

Work with the horses, on your own or with me—grooming, riding, longing, etc (very experienced riders/horse people only for riding/longing)

Work outside---planting and/or maintaining flowers and bushes around the house, if you have talent in that area.

I do not have that talent at all. (I would pay for materials---you can just care for them)

If you have special skills, such as carpentry or whatever, you might do a needed job.

If you can convert VHS tapes onto DVD for us, that would be really nice. Also have some cassette tapes to put onto CDs.

Some years I may choose to re-record some classes to update them, so would need a qualified person to record (not sure about this year).

Work in my office (or maybe your office), doing school or church or other work, according to your ability and my need

Scan old pictures and/or old school files into my computer (must be skilled and efficient at using the computer)

Any other job agreed upon—tell me your talents and interests and suggest something you'd like to do

For some professional jobs done by adult professionals, we may agree upon a "job trade" rather than a time trade

(example: re-roof the barn, a job which has been done already)

**Payment Option 2:** \$800 for any science class. Make your payment plan.

**Payment Option 3:** Percentage plan, for example 50% payment, 50% bartering, meaning work 32 hours and pay half of payment option 2  
Can be any percentage that suits you (80/20, 70/30, whatever). Design your own plan.

**Payment Option 4:** \$400 for any science class. Make your payment schedule to suit your needs.

Note to families of multiple children: If you have 2 or more children in the SAME class, you may choose to barter 64 hours for one and 32 hours for the 2<sup>nd</sup> child (and each subsequent child). OR You can barter for one and pay the ½ of the option 2 amount for the 2<sup>nd</sup> child, receiving full option 1/2/3 benefits for both. In other words, first child is full price; subsequent children in same class are half price. **Half price for 2<sup>nd</sup> child does NOT apply to option 4. Full lab fees required for all children**, regardless of payment plan.

**Recommendations for where to purchase texts** Currently, some texts are only available as used. You MUST get the correct one. (see pages 3 and 4 for course descriptions and what text to purchase)

A good local source for reasonably priced new texts is Lifelong Learning Resources and Children's Books Inc. -- located near Greer <http://www.homeschooldiscountproducts.com/servlet/StoreFront> (can pick up or they have free shipping if ordering over \$50) 557 Hammett Store Rd, Lyman, SC 29365 (864) 968-0391

Another good source is: <http://www.rainbowresource.com/> Toll-free: 1-888-841-3456 (also free shipping if ordering over \$50)

If you purchase directly from Apologia, you will pay more. You can, of course, also Google to see if anyone is selling the texts cheaper--but **MAKE SURE that you get the correct edition text AND the solutions/test booklet. Pictures are provided below.**

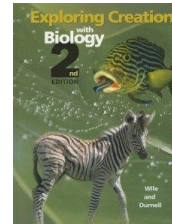
**It may be possible to buy a used text and the accompanying solutions book from someone who has previously taken the class. Check with me about that. Also, I have a few used texts from former students that I can loan. First come/first serve basis.**

## First Year Courses

### Honors Biology (1<sup>st</sup> year biology)

Purchase Jay Wile's Apologia Exploring Creation with Biology 2<sup>nd</sup> edition text **and** test/solution booklet.

This class will be taught for high school science lab credit (9<sup>th</sup>-12<sup>th</sup> grade level, though talented 8<sup>th</sup> graders may take the class). Pre-requisite: Successful completion of at least one middle school science with at least an 80%. The class will take 36-37 weeks (about 2 weeks per module), however if we need more time to finish the course, I'll be happy to allow that time. We do the entire curriculum, including the quarter tests, and I add some things. We will do blood typing (each student will learn their own blood phenotype, then figure out their own genotype, as well as chart the phenotype and genotype of family members). Also we will do some extra dissections, learn to make our own microscope slides (in addition to using prepared slides), and grow cultures in petri dishes. Some optional field trips may also be provided when feasible. I also have a collection of truly outstanding creation-based DVDs that I show to the class during certain modules.



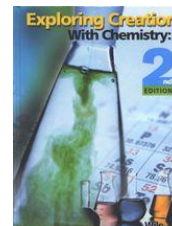
Dissection labs: The \$80 lab fee includes the dissection materials, shared by 2 students. For those who are squeamish about dissecting real specimens, I have also found a source for realistic fake specimens. The specimens can be borrowed from the company for free, but we need to pay the shipping charges each time we borrow and send back. Let me know if you prefer to use the fake specimens, before I place the orders for preserved specimens. Your lab fee is \$80 regardless of which you choose. Those wanting to use the fake specimens may incur an extra charge, as the shipping will likely run higher than the dissection kit and specimens. Note: I have not yet actually used the fake specimens—just offering.

### Honors Chemistry (1<sup>st</sup> year chem)

Purchase Jay Wile's Apologia Exploring Creation with Chemistry 2<sup>nd</sup> edition text **and** test/solution booklet.

**Also a scientific calculator is necessary. Phones are NOT acceptable.**

This class is usually taken by 10<sup>th</sup>-12<sup>th</sup> graders, although a strong 9<sup>th</sup> grader may take it if he meets the math requirements and is willing to work hard. Students should have completed Algebra I (though a student currently taking Algebra I should be okay if he is very strong in math). Linda will review all needed algebra in class at the appropriate time. Honors credit will be given for this class, as I will supplement Jay Wile's book in many areas. We will have extra labs and assignments, as well as test supplements. Since chemistry is my specialty, I've noticed some topics that I covered more in depth at school than does Wile's book. On the other hand, Wile covers some topics that we never had time to complete in school. In this course, since we are covering extra details, as well as the entire Wile book, Wile agreed that Honors credit should be given for this course. The extra labs utilize specialty chemistry lab equipment, such as burets, eudiometers, distillation apparatus, etc. If a student does not wish to do the honors work, he can receive credit for regular chemistry by doing all regular work **and** a choice of completing the extra labs OR doing the regular Quarter Tests. The Honors students are not required to take the Quarter Tests due to all the extra time involved with supplemental material, worksheets, and extra tests.



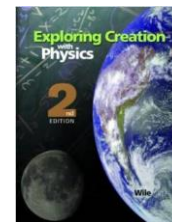
Note: There is now a 3<sup>rd</sup> edition available from Apologia, which we are NOT using at this time. Someday IF I switch, I would probably switch to Jay Wile's new text (Berean Builders) rather than Apologia's 3<sup>rd</sup> edition (which has technical difficulties).

### Honors Physics (1<sup>st</sup> year physics)

Purchase Jay Wile's Apologia Exploring Creation with Physics 2<sup>nd</sup> edition text **and** test/solution booklet.

**A scientific calculator with trig functions is necessary. Phones are NOT acceptable.**

Normally, this class is taken by 11<sup>th</sup>-12<sup>th</sup> graders. Students should have a strong Algebra and Geometry background and have studied at least the basic Trigonometry functions (which will also be reviewed and taught in class as needed). Some extra labs will be included---such as use of a Recording Time, Force Table, Ripple Tank, and Slinky, etc. An optional electronics project (equipment provided) may be done in the spring (or you can choose to substitute). Students will also view the 12-part video series "Unlocking the Mysteries of Genesis" from ICR (Institute for Creation Research) and the 8-part video "Evolution's Achilles' Heels" by CMI (Creation Ministries International), "What You Aren't Being Told About Astronomy" and possibly some other DVDs. Any student not completing the extra work will receive credit for **regular Physics** instead of honors. Both honors and regular students will take the Quarter Tests.



**Concepts of Physics:** Students who are not up to (or don't have time for) the heavy-duty math involved, but who would like to learn the concepts of physics, which are so fundamental to every area of science, may take the class and receive credit for "Concepts of Physics" instead of regular or honors physics. Such students will be exempted from certain specific homework and test questions; however will still need to complete all labs and view the DVDs.

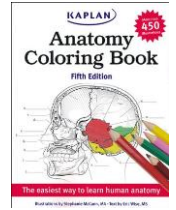
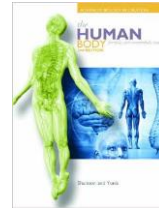
Regular, Honors, and Concepts students will be working together doing the same thing in the same class (only their home assignments will vary).

## Second Year (advanced) Courses

(Note: you can also count these as honors courses if completed in their entirety, as they are “heavy duty”)

### Advanced (2<sup>nd</sup> year) Biology (Honors Biology plus this course enable a student to take the AP Biology exam)

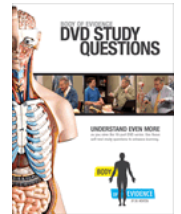
This is actually an Anatomy and Physiology course. Purchase Apologia’s Advanced Biology in Creation: The Human Body, Fearfully and Wonderfully Made by Shannon and Unis, 2<sup>nd</sup> edition text **and** test/solution booklet. Also purchase the Kaplan Anatomy Coloring Book Fourth or Fifth Edition (sold side-by-side with the main text)



Students in this class **must** have already completed first year biology and chemistry. Also it is best if they have completed or are concurrently taking first year physics. **Not a requirement, but I do not recommend ANY advanced class unless a student also gets the basic first year class in each of the three major areas of biology, chemistry, and physics.**

As in all classes, we will cover the entire main text. We will add nutrition information concerning each body system as we study the system. My main source for this will be from the text Nutrition 101: Choose Life! Family Nutrition and Health, 2<sup>nd</sup> edition by Raybern, Johnson, Hopkins, and Hopkins. Students do NOT have to purchase this text as it will be studied in class and will not be tested on this supplemental material. It’s what I call “free learning.” We may or may not have time to add activities from the nutrition text. I also have a fabulous human body DVD series from Answers in Genesis to go along with this course. You will need to purchase a DVD study guide. Depending on class size, we might be able to get a quantity discount.

Class will consist of lectures (if desired), the Menton DVD series with study guide, and all labs. I assist with concepts as needed, answer questions, grade all work, and do a final grade. The Nutrition book may be read in class or at home.



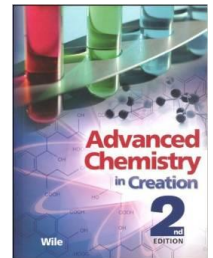
### Advanced (2<sup>nd</sup> year) Chemistry (Honors Chemistry plus this course enable a student to take the AP Chemistry exam)

Purchase Jay Wile’s Apologia Advanced Chemistry in Creation 2<sup>nd</sup> edition text **and** test/solution booklet.

**A scientific calculator is necessary. A phone is NOT acceptable.**

Students in this class should have completed Chemistry and be very confident in math/algebra. Also Physics should be taken prior to or concurrently with this class. **I do not recommend ANY advanced class unless a student also gets the basic first year class in each of the three major areas of biology, chemistry, and physics.**

If there are not enough students for a regular class with lecture, a student could do this with me as an “independent study.” This means that I assist with concepts and math as needed, answer questions, do labs with the student, grade all work, and do a final grade. If I have a recording (from a prior year) of a module, the student has the option to view it. Cost is the same.



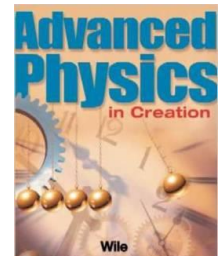
### Advanced (2<sup>nd</sup> year) Physics (Honors Physics plus this course enable a student to take the AP Physics exam)

Purchase Jay Wile’s Apologia Advanced Physics in Creation text **and** test/solution booklet. (there is NOT a 2<sup>nd</sup> edition available---however later printings have a different cover, which is fine).

**A scientific calculator is necessary. A phone is NOT acceptable.**

Students in this class should have completed both Chemistry and Physics and be very confident in math/algebra. It is **necessary** to have completed geometry and algebra II, along with some trig functions. It is **best** to be at least at the pre-calculus level when taking this class. I will review any math required during the class. If the student is taking calculus, I’d be glad to include some calculus-based problems as an extra bonus. I’ll assist with whatever math skills the student lacks. An electronics project (I provide the equipment) is strongly recommended as an extra for this class. I also have some great DVDs to supplement, including an optional college series on Particle Physics. I do not recommend ANY advanced class unless a student also gets the basic first year class in each of the three major areas of biology, chemistry, and physics.

If there are not enough students for a regular class with lecture, a student could do this with me as an “independent study.” This means that I assist with concepts and math as needed, answer questions, do labs with the student, grade all work, and do a final grade. Cost is the same.



### Calculus or Pre-Calculus (called Advanced Mathematics in Saxon)

Purchase Saxon 2<sup>nd</sup> Edition, **plus** Answer Key and Homeschool Testing Book.

A graphing calculator is strongly recommended.

You can get a **great** graphing calculator app for under \$3— which is what I use (even better than an expensive graphing calculator). (also free online graphing calculator at <https://www.desmos.com/calculator>) (Yes, phone **can** be used for graphing)

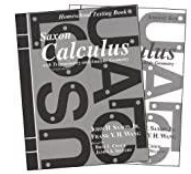


Scientific Graphing Calculator 2

Free or Full Version



Text



Tests and Answer Key

So far, these courses have been on an individual, tutoring basis. (I can also tutor any high school math with curriculum of your choice.)



Linda is on a diabetic diet, and Corwyn has some meal restrictions, I'd like to keep meal bartering to a minimum, as that is not really a great need any longer. We can do meal bartering on occasion. Below is a list of guidelines to help you. I need to know what you plan to bring to help me plan my own grocery shopping. A meal should consist of a main dish and at least one side.

1. Don't spend too much. Otherwise, you may as well do the payment option and save yourself the trouble.
2. Please do not send frozen dinners (such as Stouffers, etc). Homemade frozen meals for later are fine.
3. No desserts (yes, I LOVE desserts, but my diet limits me).
4. Avoid meals that are too fattening. Use fat-free or low fat products when possible (for example, fat-free sour cream, etc)  
My persnickety pancreas and diabetes requires a low-fat diet and a low carb diet.
5. We LOVE Italian and Mexican food, but nothing too spicy. Think MILD (but not bland).
6. We love whole wheat bread, especially homemade. My diet strictly limits white bread.
7. If you send salad (which we love), it is not necessary to send salad dressing. If you do send a dressing, we prefer fat-free (and low carb for me).
8. We love mashed potatoes (made with real potatoes, not instant stuff). Also, sweet potatoes should be "real" not canned.
9. We prefer leaf lettuce, spinach, and other types of darker lettuce over Ice berg lettuce
10. My diet prohibits white rice, but brown or wild rice is ok. Corwyn cannot eat rice at this time, so that's probably not the best thing to send.
11. Always think homemade cooking for saving me time—as time is what I need. If you're going to simply buy something, it would be better to give me the money so I can buy what I prefer (unless it's something I need to go with whatever you cooked).

Do NOT send:

Rice  
Mushrooms  
Fish  
Coconut  
Rye bread  
Lima beans (a little in soup/stew etc is fine)  
Cooked spinach (love it raw though)  
Minimize or omit black pepper