

Summer Assignment for AP BIOLOGY

ALL WORK is DUE the first Day of school 2011/2012 School Year - NO EXCEPTIONS.

All work is to be done by individual students. There is no "group-work" for this.

I know that it may be tempting to divide the work, and email the answers to each other, but it will not be worth the consequences. I have caught such activities on past assignments, and every student caught received Zeros, and Discipline reports (points were given by the vice principal). Use the following checklist to guide you through your summer assignments:

1) Graphing Packet. You must answer every question and draw every graph requested. When a question asks you to "describe what the graph shows," look at the overall picture and trends, not just the apex/highest point. Making and interpreting graphs is an important part of biology. Every AP exam has a few questions about graphs. The AP Exam has also frequently had students make and interpret a graph on an essay question. This is a basic skill that you need to do well in any AP science class. You should complete this packet before performing any labs. While I will expect you to use computer generated graphs in the year, I want these graphs made by hand. This will ensure academic integrity.

2) Plants. We will be starting the year with Unit Six: Plant Form and Function. Read through chapters 29-30, and 35-39. Yes, your first Exam will be on 7 chapters worth of material within the first couple of weeks of school. I suggest that you work on these questions in chunks, do not try to process and memorize it all at once. Answer all of the items from the following question sets:

- Plant Diversity I & II (Chs. 29 and 30)
- Plant Structure and Growth (Ch 35)
- Transport in Plants (Ch 36), Plant Nutrition (Ch 37)
- Plant Rep and Dev (Ch 38)
- Plant control systems (Ch 39).

The questions sets are broken up into three files in order to alleviate large download times. I would highly suggest reading the text first and then attempting to answer the questions. Many of the questions may not be in order of presentation in the text.

3) Plant observations with proper laboratory notebook formatting. (See LABORATORY NOTEBOOK PROCEDURES first.)

You must go out and observe/draw 5 monocots, 5 dicots, 2 gymnosperms, 1 seedless vascular plant, and 1 bryophyte. Include: leaves & flowers for angiosperms, needles or leaves, and cones or seeds for gymnosperms. For the Seedless Vascular and Bryophytes include what seems appropriate. Along with each sketch include both the Common and Scientific names. I do understand that some of the species are going to be difficult to I.D. so if all you can get to is the Genus, that will be fine. If you want to collect and press any samples, be careful what you take. Some plants can cause reactions, like Poison Ivy, and other plants might be rare or protected. If you are thinking of taking anything from a Nation or State Park/Forrest, talk to a Park Ranger first. Most National Parks forbid the removal of any specimens to ensure that the habitat is preserved for everyone to enjoy.

4) Sign and turn in the last page of the AP Biology Class Expectations document.

5) Go to the following website: mhslifesci.moodlehub.com and sign up for an account (click on log in and follow the links from there). You will then need to add AP Biology to your classes. The password to add the AP Biology class to your list is "mitochondria". This site will serve as our repository of information for the class.

6) Read, sign and return the lab safety contract on the first day of school.

A book receipt will be filled out. All textbooks are due back at the beginning of the school year or a heavy fine will be applied. **Students that drop the class over the summer are required to return the book after dropping the class.**

Any student interested in obtaining his or her own copy of the textbook we will be using, should be able to purchase one online. The book that we will be using is:

-Biology 7th Edition, by Campbell, Reece, and Mitchell. ISBN 0-8053-6777-2

It has a CD-ROM. The cover is Red with a Black and White photo of a Fiddlehead up close.

If you have any questions, please feel free to contact me via email at cresch@mtsd.us or bioteach5@gmail.com.

Please note: I *advise* you to be ready to ask questions and discuss the summer materials on the first day of class. Because of the new block scheduling all sciences courses are losing class time. We will need to move fast so you will really need to step up and do your best possible work. Procrastination will not work with the new block schedule so be ready to go! If you have any questions regarding the new schedule please don't hesitate to contact me.

Have a great summer.

Mr. Resch

PS Please do not procrastinate and send me emails 2 days before school starts because you cannot finish the assignment.

The Plant Slides for AP Biology will be what you will work on during the first week of school. A good Pre-lab activity to look at can be found at <http://www.bio.rutgers.edu> The Rutgers Virtual Biology Labs. Labs 7 & 8, Plant Evolution and Angiosperm Reproduction. If the first page you come across is for General Biology 102, you can change the URL to http://www.bio.rutgers.edu/~gb101/virtuallabs_101.html

If you are not proficient in using microscopes, skipped Regular Biology for Juniors, you should also look at Lab 1: Cell Structure, which explains basic microscope techniques.

There is also a list of recommended supplements for this class posted there. Please go online and read this prior to the first day of school. Additionally, there is an extensive list of Roots (prefixes and suffixes) which many students find valuable when deciphering the strange vocabulary that you come across in this class.

- To reach these documents on Schoolwires:
 - Go to the district homepage at <http://www.mtsd.k12.nj.us/montgomerytsd/site/default.asp>
 - Select "Montgomery High School" from the drop down box in the upper left corner.
 - Select "Staff" from the black bar running across the page.
 - Select Chris Resch then the folder named "AP Bio"