

AP BIOLOGY
Summer Homework: 2013-2014
Mr. Maxey

Dear Student,

Welcome to AP Biology! I am excited to have you enrolled in this high level course. The summer homework is your introduction to AP Biology. Students failing to complete required summer work will have their assignment grade dropped a full letter grade on the first day it is late. Three days after the due date the assignment will be graded as a zero. Missing the required due date will significantly reduce your fall semester final grade in AP Biology. **This is the only assignment that will be accepted late.** Doing your work, on time, will prepare you for success. (I DO NOT ACCEPT LATE WORK, AND THERE ARE NO TEST RETAKES. COME AND BE PREPARED.....)

Why summer work? The College Board Objective outline for AP Biology is fewer topics covered in more depth. We have the months of September-March to complete the curriculum (April is saved for review) prior to AP testing in May. In order to cover, all of the, curriculum we must dive into our learning during the summer months. This will prepare you for the rigor required to be successful in college. (The one thing that will make you successful is, understanding what you read. READ, READ, and RE-READ.)

Thank you,
Mr. David Maxey

p.s. Did I mention to be successful you need to READ?

p.s.s. Find a quiet place to study, without music or distractions, learning costs (that's why you PAY attention) your brain cannot multitask.

<http://websites.mcpherson.com/~maxeyd> this is our main website with notes and other helpful resources.

<http://maxeyscience.weebly.com/> this is our alternative site with class calendar, reading forums, and blogs.

Our summer assignment is due on the first day of class! This assignment accomplishes several objectives. The objectives are as follows:

1. Your completing this work will allow much more class time to be devoted to areas of Biology that will be new and difficult for most students.
2. This work will be an introduction to the College Textbook and the level of rigor you can expect.
3. You should read no more than a few pages in one sitting. Attempt to answer questions without quoting the textbook. If you cannot write the answer in your own words, you probably do not understand the material.
4. The chapters covered in the summer work will be summarized the first 2 weeks of school. Please review the material shortly before returning to school. The College-level Biology textbook is written to be read and re-read. If you do not understand, you should stop and re-read until you understand. Also, see if you can find an animation of the concept on-line so you can "see" the concept in another form. (refer to websites above)
5. Suggestion... Summer work is only 8 chapters. Do one chapter a week and you will be finished BEFORE the end of July. Go back and review everything the two weeks prior to the start of school in August and you should be set for our first quizzes and exams!

Assignment Theme... Chemistry and Basic Biology Review!

Your summer work will cover Chemistry, Organic Chemistry, Cells, Membranes, Transport, and Enzymes. Many of the concepts that you will cover in this summer work build on all the knowledge you already have. We are just going into more depth at a higher level (college level) and learning the technical words and concepts that go along with the easy ones listed above.

What is the “Assignment?”:

1. Check out the AP Biology textbook before the end of the school year.

Campbell and Reece: Biology 7th Edition

2. Visit the class website and weebly site. Familiarizing yourself with both sites. You are welcome to post questions to your teacher and peers over the summer and during the school year, using the AP Bio. class forum. If you have a text specific question or comment use the reading forum, your classmates may be able to explain topics in a different way.
3. Read each assigned chapter (IN THE ORDER listed below).

Note: All notes are to be hand written legibly. Typed notes will not be accepted.

4. In Cornell Notes style for EACH chapter...(or in your own well organized and legible style of taking notes)
 - a. List each black bold word from the chapter on the L side of the page and then write a clear and concise definition of the word on the R side of the page (some words will be deleted from the list see chapter specific notes below).
 1. Be thorough.
 2. We will have vocabulary/reading quizzes on the summer work when you return to school.
 3. Each time you sit down to start a new section of notes go back and re-read and highlight your notes from the day before. This will help you remember what you have read.
5. For EACH chapter...
 - a. Write a 1/2 page summary of the chapter including the two most important “BIG IDEAS” (See handout) that were taught in the chapter. (This might be the time to use the AP Bio. Reading forum to discuss and share Ideas.)
 1. This should be right below where you finish the Cornell Notes vocabulary for the given chapter.
6. Re-read EACH Chapter and in **complete sentences** answer the Concept Check. These questions are spread throughout each chapter located in yellow boxes titled in blue “Concept Check.” Or follow the directions in #1. below.
 1. List the question on the L side of the page (you can paraphrase them), and list the answer on the R side of the page. Or better yet answer in complete sentences.

Example: p.8 Concept Check 1.1 Question 3.

3.) *At the cellular level, plants have more in common with animal cells than they do with bacteria because both plant and animal cells are eukaryotic, which means they have membrane-enclosed organelles and a nucleus which holds the DNA, bacteria are prokaryotic and lack organelles and a nucleus.*
 2. Each chapter will have a different number of Concept Checks depending on the length of the chapter.
 3. Do the work on your own without using the appendix. (This should be used to check your understanding.)
7. Compile your work in a binder in the following order for each chapter:
 - a. Chapter tab-Chapter # and Topic listed
 - b. Chapter Notes Vocabulary
 - c. Chapter Summary
 - d. Chapter Notes Concept Checks
 - e. **Turn in your work on the first day of class.**

The Summer Work Chapters

****In THIS order!**

Chapter 1 Exploring Life (This chapter is only required reading, this should be a review of general Biology. You can take notes if you wish.)

Chapter 2 Chemistry of Life

Chapter 3 Water and the Fitness of the Environment (importance of water)

Chapter 4 Carbon and Molecular Diversity of Life

EXCLUDE the functional groups “carbonyl” and “sulfhydryl” functional groups in section 4.3. Do all other sections.

Chapter 5 The Structure and Function of Macromolecules (the 4 organic compounds)

Chapter 6 A Tour of the Cell

Chapter 7 Membrane Structure and Function (also transport)

Chapter 8 An Introduction of Metabolism