

AP Biology Summer Work
Contact: Ms. Short (brandy.short@dma.k12.de.us)

Welcome to AP Biology!

We have a great deal of material to cover before the AP Exam beginning with Biochemistry. Your summer assignment is to read Chapters 2, 3, 4, 5 and 41 from your textbook Biology 12th edition, by Campbell and Reece. This book will need to be picked from the main office. You will get a Biology textbook and a test prep book, to help you prepare for the AP Biology Exam. There are guided reading questions and the test of your understanding to be completed for all chapters. In addition, you will complete a free response (an essay) on Protein and Digestion. The requirements are listed below:

1. Read each of the assigned chapters, take notes and complete the chapter reading guides. Links for the chapter reading guides are at the bottom of the document. Click on the link to open the document and hit File, Make a Copy. On the first day of school I will have an assignment ready for you to submit your completed reading guides.
2. After reading, complete the Test Your Understanding at the end of each chapter. You will turn in your answers to each chapter. You can answer these questions at the end of your chapter reading guides.
3. Complete the free response (essay) on protein structure and digestion. You will need to do independent research to complete this portion of the assignment. The Free Response Essay prompt is below. On the first day of school I will have an assignment ready for you to submit your completed essay. You can write the essay on the computer or on paper.

Be sure to write this response **IN YOUR OWN WORDS!** Plagiarized essays will not be graded. These assignments are due on the first day of class. If you have any questions about the assignment, contact me at brandy.short@dma.k12.de.us. Please consider it is the summer and I will be checking my email weekly.

AP Biology Free Response Essay
Protein and Digestion Essay
Chapter 5 and 41

The physical structure of a protein often reflects and affects its function.

1. **Compare** and **contrast** the four protein structural configurations – primary, secondary, tertiary and quaternary.
2. **Describe** THREE types of chemical bonds/interactions found in proteins. For each type, **describe** its role in determining protein structure.
 - a. You may include diagrams WITH your explanations.
3. The process of digestion is both mechanical and chemical. **Choose** any 3 chemicals involved in the process of digestion. For EACH of the three chemicals: - **Indicate** where in the body this chemical is made.
4. **Describe** how, in detail, this chemical is involved in digestion.

Be sure to include in text citations. In addition, a full citation list should be included at the end of the essay. You may hand write your essay, submit it electronically via email or type and print your essay. Any method is acceptable.

READING GUIDES (by chapter)

Chapter 2 Reading Guide

https://docs.google.com/document/d/1itBrVWYw9RaKCSJn9T_ovbSO32tgnZrdfluQIs93_sE/edit?usp=sharing

Chapter 3 Reading Guide

https://docs.google.com/document/d/1lbiiO04ojkaGqNI8ZhKkyB_3INt52h6ME-1ImrB2kZs/edit?usp=sharing

Chapter 4 Reading Guide

https://docs.google.com/document/d/17AjiUgUQ0knKt9z_TF6zasUVqmjzVU7zgPdVvuTtcll/edit?usp=sharing

Chapter 5 Reading Guide

<https://docs.google.com/document/d/1gux6ZfN7ZfmpG59PQM3z7yFnlyd6vS3EgSRkWaOzeIE/edit?usp=sharing>

Chapter 41 Reading Guide

https://docs.google.com/document/d/1iAFSjCNyE_G7U1gJl8MsOHtg0DY4TrYaOOYNRP_E1aA/edit?usp=sharing