AP Biology Summer Assignment (First Quiz Grade)

Welcome to AP Biology! **Due August 13-14th, 2026** The two main goals of AP Biology are to help you develop a conceptual framework for modern biology and to gain a deeper appreciation of science as a process (as opposed to an accumulation of facts). Because of the rapid pace of discovery in life sciences our primary emphasis is on developing an understanding of unifying concepts that connect the major topics of biology. The AP Biology Curriculum centers around the four Big Ideas and you will need to not only know these but also understand how they all relate:

- **Big Idea 1: The process of evolution drives diversity and unity of life.**
- **Big Idea 2: Biological systems utilize free energy and molecular building blocks to grow, to reproduce and to maintain dynamic homeostasis.**
- **Big Idea 3: Living systems store, retrieve, transmit and respond to information essential to life processes.**
- **Big Idea 4: Biological systems interact, and these systems and their interactions possess complex properties.**

What to do before the first day of school:

- AP Biology was designed by a select group of college professors and high school science teachers to be equivalent to an introductory college biology course. It can be a challenge for students who are not prepared nor are willing to work hard in this class. Visit the College Board site below to **explore** what an AP Biology course is like:
    - https://apcentral.collegeboard.org/media/pdf/ap-biology-course-and-exam-description.pdf

- We have a small problem in AP Biology. Each year new advances in science are discovered but the length of the school year (and when the test occurs) stays the same. What does this mean? We are short on time. In order to cover **ALL** of the material, you are responsible for reviewing some sections on your own.
  Directions on what to do: TAKE NOTES from the following Links:-

  HANDWRITTEN detailed notes on each video and please include drawings, diagrams or tables. The notes must have the following: Complete in your class notebook (listed below in materials) in the ORDER of the videos
  To reiterate, complete notes in a NOTEBOOK. The type of notebook required is listed under mandatory materials.

  1. **The title of each Video**
  2. **Notes must be detailed summary details of each video**
  3. **Notes must include drawings, diagrams, tables or concept maps**

Watch the following 18 short YouTube videos (Do not look at the 47 mins long Unit 7 Review):
Unit 7 Evolution (13-20% weight on the AP Exam) **- (40 pts)**

https://www.youtube.com/playlist?list=PL5wFpCHszzmD6uzCl75T-NVY_qiwisIrZ

Watch the following 13 short YouTube videos (Do not look at the review videos. Stop at "8.7: Disruptions to Ecosystems Part 2") Unit 8 Ecology (10-15% weight on the AP Exam) **- (40 pts)**

https://www.youtube.com/playlist?list=PL5wFpCHszzmABJgt3miHBNrqbQTG33vaA

Watch the following Amoeba Sister videos.

- **Biomolecules: (5pt)**
- **Enzymes: (5pt)**
- **Cell Organelles and Structures : (5pt)**
- **Cell Transport: (5pt)**

Mandatory items to purchase for the first day of school:

- **Five Star Spiral Notebook College Ruled Paper with Water Resistant Cover, 8-1/2" x 11", 200 Sheets**
- **1 1/2-inch Binder and 9 Dividers for your binder**
- **1 Black/Blue [no dry erase] and 2 red Ink Pen**
- **Pencils**
- **1-pack of fine point Dry erase markers**

I truly am looking forward to working with you next year! Don't procrastinate on this assignment!!! There is one Quiz on Unit 7 and another quiz on Unit 8 within the first two weeks of school.