

Newberry High School
AP Biology 2019 Summer Assignment

Welcome to AP Biology!

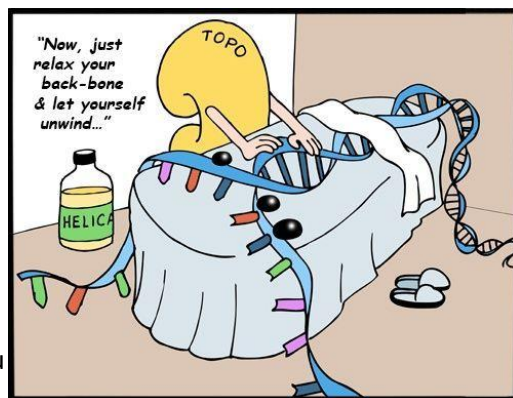
The two main goals of AP Biology are to help you develop a conceptual framework for modern biology and to gain a deeper appreciation of science as a process (as opposed to an accumulation of facts). Because of the rapid pace of discovery in the life sciences, our primary emphasis is on developing an 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 the 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:

- **Email me at kageah@gm.sbac.edu** from the email address that you prefer to receive AP Biology related communication. Over summer your passwords are reset by the school district however you can still send me that email. If you encounter problems with your summer assignments, you can contact me at the address listed above.
- **Get the text book from the Library** – *Biology, Eight Edition, AP-Florida Edition, Campbell and Reece*
- Purchase a copy of *5 Steps to a 5- Elite Student Edition: AP Biology 2020* by Mark Anestis and Kellie Ploeger Cox. *This book will be released August 2, 2019, but it is available for pre-order now.*
- 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. Visit the College Board site below to explore what an AP Biology course is like:
 - <https://apstudent.collegeboard.org/exploreap?affiliateId=apcentral&bannerId=exploreap1>
- 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 AP Biology 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 the Chemistry section on your own. Here is what you are to do:
 - **AP Biology Summer 2019 Part 1: Print and complete the [Chemistry Review Worksheet](#):** As an AP Biology student the expectation is that if you don't know it, find it out. Here are a few helpful resources:
 - The Barron's study guide is an amazing resource—if you get it, use it! It will definitely help you to review some of the chemistry that you will need!
 - **AP Biology Summer 2019 [Part 2](#):** Print and complete this [packet](#) consisting of reading selections and questions.
 - **AP Biology Summer 2019 Part 3:** Bozeman Science Videos – see assignment on the back of the page.

Assignment #3 – Video Notes – due 1st day of AP Biology

Watch the videos listed below and take **hand-written** notes on each of them. The note should be your **original work**. EACH note sheet will be scored 0 to 5 based on completeness and thoroughness as shown in the rubric below. Note pages will not be accepted late nor will they be accepted typed.

#	Video Content	Links
1	The Nature of Science	https://youtu.be/77TFiYWPxoQ
2	The Scientific Method	https://youtu.be/SMGRe824kak
3	CER (Claim- Evidence-Reasoning)	https://youtu.be/5KKsLuRPsvU
4	AP Biology Science Practice 1 Model and Representations	https://youtu.be/v5Nemz_cVew
5	AP Biology Science Practice 2 Using Mathematics Appropriately	https://youtu.be/jgqYISKoXak
6	AP Biology Science Practice 3 Formulate Questions	https://youtu.be/2zB272Ak63A
7	AP Biology Science Practice 4 Data Collection Strategies	https://youtu.be/AzTXnne40wU
8	AP Biology Science Practice 5 Analyze Data and Evaluate Evidence	https://youtu.be/0JqukouOtZA
9	AP Biology Science Practice 6 Scientific Explanations and Theories	https://youtu.be/3gK1xWNM7kk
10	AP Biology Science Practice 7 Connecting Knowledge	https://youtu.be/7l4bcs49JP8

0 No Credit	2 Below expectations	3-4 Complete	5 Exceeds expectations
No notes OR copied from a peer.	Several criteria are missing from entry	All criteria are met, but there's room for improvement within criteria OR one criterion is missing from entry.	All criteria listed below are met or have been exceeded for each entry.

What does work that “exceeds expectations” have?

- ✓ Each video’s notes are on a different page.
- ✓ The video’s title is written as it appears in the video on the top line of the paper.
- ✓ The notes are legibly written.
- ✓ Highlighting or colors are used to emphasize key points, new vocabulary, and/or important concepts.
- ✓ Examples are documented in some way when given in the video.
- ✓ Pictures, charts, or graphs are used to display details provided in the video.
- ✓ A summary of the video content is provided at the end of the notes. Please emphasize the summary in some way (title it, star it, highlight it, etc.) Notes are to be *original work* and are not to be copied from a peer – these serve as a log of what you have learned from the video. Copying them from a peer and not watching the video does you no good. You will receive zero credit if you are found submitting work that is too closely aligned with a classmate’s work.

I am truly looking forward to working with you next year!

Best regards,
Ms. Kage