

AP BIOLOGY SUMMER ASSIGNMENTS

1. Purchase AP *Edition Campbell Biology by Urry et. Al. (**11th edition** w/ a sunflower on front) published by Pearson/Benjamin Cummings (copyrighted in 2017). <https://www.pearson.com/us/higher-education/program/Urry-Campbell-Biology-Plus-Mastering-Biology-with-Pearson-e-Text-Access-Card-Package-11th-Edition/PGM209351.html>
2. Purchase **Genome** by Matt Ridley (this can be bought used at a local bookstore like Smiths). Read the “Introduction” to get to know the author’s intent & rationale for the book & its set-up; then read Ch. 21 on “Eugenics” and visit the internet to see some discussion of the topic. Write a 1-2 page paper on that topic—your choice on what to write about it. Substantiate with specifics and include your sources.
3. Read Ch 1 of Campbell’s Biology, and research Fritjof Capra’s ideas on biology and the web of life. Remember he wrote “The Dance of Life” I had honors biology read early sophomore year—it is available along with “A Chat with Fritjof Capra” that may be helpful as well. Just email me and I can send you the pdfs. After reading & reflecting and remembering back to sophomore biology, write a page response answering the question “What is Life?” Elaborate (don’t regurgitate).
4. Skim Unit 8 on Ecology in Biology textbook. Then write 1-2 paragraph responses (these should be substantiated with specifics) for each of the following. *Page references are for the 9th edition!*
 - A. CH 52 “An Intro to Ecology & Biosphere” Review (p. 1169)--answer the “Scientific Inquiry” question #13 about the plant species.
 - B. Same page, answer the Feedback Regulation question #14.
 - C. CH 53 “Population Ecology” (p. 1193), answer the “Science, Technology, and Society” question #14 on population growth.
 - D. CH 54 “Community Ecology” (p. 1217), respond to “Genetic Basis of Life,” question #14; include a theme of biology in response.
 - E. Read Ch. 7 on “Instinct” of Genome a write a paragraph response on what struck you esp. in terms of what is instinctive behavior (reviewing Ch. 51 on Behavior of the text for understanding.)
 - F. Adaptation—it is one of those words that has so much meaning. Summarize your take on it and offer a good explanation of its meaning using specific examples. You may include more than one meaning.
5. In Chapter 52, there are 8 terrestrial & 8 aquatic biomes depicted (pp. 1153-56 + 1159-62). Pick one by contacting me **ASAP**—no one does the same biome so first come, first serve. Research and present the important abiotic and biotic factors that make up that system. What are the dominant and keystone species? Any invasive/introduced species to worry about? **And include the effects that global warming/climate change will have on the biome.** You need to cite at least one outside source/scientific source—esp. recent studies/empirical evidence on the topic. Use Ch. 55 on ecosystems for help. The first **full** week back you will do a PowerPoint presentation on your researched biome (10-15 minutes long). The idea is to convey a good working knowledge of **systems** (overview of the parts & how connected) biology (see pp. 3-6 in text).

Please submit your work up #2 and 3 to me by the end of the 1st week of August/ #4 submit to me by the last week of August. You can type up on Word and submit via e-mail (NOT pdf). You can e-mail any

assignment when finished. I can be reached at pwagner@marisths.org. The PowerPoint presentations will begin the second week of school. You can visit Schoology and see a copy of the Syllabus if you want to.

Sincerely, Mr. Patrick Wagner