

## AP Biology Summer Homework 2022

***Hi All! I'm so excited to welcome you to AP Biology! Feel free to email me [rcool@marisths.org](mailto:rcool@marisths.org) if you have any questions or just want to say hi.***

In the fall we will begin using Mastering Biology as the homework program, along with the Campbell Biology for AP 12th Edition -- Pretty Purple Flower on the cover (You will be able to purchase the ebook along with Mastering access).

For now, I would suggest that you might want to take a look at the OpenStax AP Biology book (it's free!)

You will have the opportunity to read a "popular science" book this year as well - Genome or The Red Queen by Matt Ridley, Spillover by David Quammen, Your Inner Fish by Neil Shubin are just a few examples of what you might choose. Feel free to look at some "popular" biology books this summer & see if one piques your interest!

We are going to be starting the year with Chemistry, so familiarizing yourself with Chapters 1 & 2 would be great --much of it should be review, but if it's not, make note of the items that you need to study further! I would like to really be able to start with Chapter 3 (Macromolecules) when we return in the fall. Bozeman Science and Crash Course are both great resources for AP Biology!

### **Homework**

Just like our study of biology was focused around 4 Themes of Biology: (Evolution, Interdependence, Structure and Function, and Unity in Diversity)

AP Biology will have similar **BIG IDEAS** that will help organize our understanding of biological topics.

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

*This summer I would like you to choose an activity (read a book, watch a movie, listen to a podcast, take a field trip) and in the process see if you can come up with examples/illustrations for the 4 BIG IDEAS. We will share these during the first week of school, so you may want to take pictures, jot down notes etc. (This will be very informal!)*

The beautiful thing about biology is that it is all around us all the time! I want you to start to engage with thinking about the big ideas and how they can help us understand the world around us.

Have a wonderful, relaxing summer! ~~ Mrs. Cool

