

AP Biology Summer Homework 2026

Hi All! I'm so excited to welcome you to AP Biology! Feel free to email me 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 in Focus Book (You will access both at the start of the year).

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

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 after we do some Statistics Review. 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.

*To illustrate the connections between organisms and to show how different organisms accomplish essential tasks, I'd like you to choose a body system (ie. circulatory system, respiratory, digestive, reproductive, nervous system, senses) and pick a few different types of organisms (3-5) (mammal, insect, vascular plant, microorganism) and compare and contrast how they accomplish the tasks associated with that system. The OpenStax book is a great resource for this! Feel free to make a diagram, illustration, slides, whatever you prefer! **Due Sept 9th.***

You will also have opportunities to engage in some nature journaling throughout our biology studies. I encourage you to find a spot you can reliably access (backyard or park work well) and take some time (20 minutes) to sit quietly and observe. Choose one organism (or part of an organism ~ leaf, flower) to sketch & record some observations. If you can do this 2-3 times that would be a terrific start!

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

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