

## AP Biology Summer Assignment 2021

Welcome to Advanced Placement Biology!

The following are the four Big Ideas that the College Board has developed, which are essential to this course.

- 1. The process of evolution explains the diversity and unity of life.*
- 2. Biological systems utilize free energy and molecular building blocks to grow, 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.*

As you can see these are truly “big ideas” and in AP Biology we have a very challenging year ahead. As AP Biology students, you need to be self-directed, organized and enthusiastic. It is the student, NOT the teacher that will determine your success in this course. We will be covering a huge amount of material, after all this is an introductory college-level biology course. But with all the hard work comes a deeper understanding of Biology as well as greater appreciation of all the science subjects that you have previously taken.

### Summer Assignment Tasks

1. View the entire College Board AP Biology course and exam description [here](#). Please look over it in detail. You will be using this as a reference in your next two portions of your summer assignment. If you have any questions about the year or expectations please email me.
2. Learn how to use Kami. This is a PDF editor that we will use frequently throughout the year. First, download the extension from [Chrome Web Store](#) onto your SCHOOL CHROMEBOOK. You will NOT need to purchase a subscription. Then [watch this video](#) to help you learn how to implement it. You don't have to master it over the summer. We'll all practice together over the course of the year.
3. Complete the [AP Biology Summer Assignment 2021 -- Statistics](#). You will be submitting this on Google Classroom for a grade. You will be using Kami to record all of your responses.
4. Read ONE of the books from the following list. Write a one page (typed, double spaced, size 12, Times New Roman) summary of the book. As part of your summary you must include at least ONE *Essential Knowledge* point from the Course Exam and Description. Include the topic name and unit name as well as the Essential Knowledge label and description. For example: *In Unit 1 Chemistry of Life, Topic 1.6 Nucleic Acids, Essential Knowledge IST.1-A-1 says DNA and RNA molecules have structural similarities and differences related to their function. This is shown in the book, when the author talks about...*

You will submit your summary on Google Classroom for a grade. The following is a list of books to choose from. You can read a hard copy or listen to an audio version if available. I highly recommend checking a copy of your selection out of the library. Both *Hoopla* and *Libby* are Apps that allow you to listen to audiobooks for free through your local library. You just need a library account, which is also free.

	Title	Author
1	<a href="#">The Machinery of Life</a>	David S. Goodsell
2	<a href="#">Every Living Thing: Man's Obsessive Quest to Catalog Life, from Nanobacteria to New Monkeys</a>	Rob R. Dunn
3	<a href="#">Darwin Comes to Town: How the Urban Jungle Drives Evolution</a>	Menno Schilthuizen
4	<a href="#">I Contain Multitudes: The Microbes Within Us and a Grand View of Life</a>	Ed Young
5	<a href="#">The Rise and Fall of the Dinosaurs: A New History of a Lost World</a>	Steven Brusatte
6	<a href="#">Genome: The Autobiography of a Species in 23 Chapters</a>	Matt Ridley
7	<a href="#">Beaks, Bones and Bird Songs: How the Struggle for Survival has Shaped Birds and Their Behavior</a>	Roger J. Lederer
8	<a href="#">The Making of the Fittest: DNA and the Ultimate Forensic Record of Evolution</a>	Sean B. Carroll
9	<a href="#">Survival of the Sickest: The Surprising Connections Between Disease and Longevity</a>	Dr. Sharon Moalem
10	<a href="#">Anthill: A Novel</a>	Edward O. Wilson

I hope you have a restful summer and become more aware of all the biology that is constantly around you.

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