

Summer Assignment

CCHS AP Biology 2026-2027

Dear future AP Biology students,

Welcome to an exciting, fast-paced course diving deeply into the subject of biology. We are looking ahead to a great year! This course explores many biological processes at the detailed level of an “introductory college course for majors”, with a focus on the development of your scientific research, analysis, and communication skills. While taking the AP Exam is not required, it is encouraged, and most students do. I will do everything I can to help you prepare, but that is only effective when you do your part as well. The key concepts and related content that define the AP Biology course and exam are organized around four main “big ideas” which encompass the core scientific principles, theories, and processes of living organisms and biological systems:

Big Idea 1: Evolution: The process of evolution drives the diversity and unity of life.

Big Idea 2: Cellular Processes: Energy and Communication: Biological systems utilize free energy and molecular building blocks to grow, to reproduce, and to maintain dynamic homeostasis.

Big Idea 3: Genetics and Information Transfer: Living systems store, retrieve, transmit, and respond to information essential to life processes.

Big Idea 4: Interactions Biological systems interact, and these systems and their interactions possess complex properties.

Our first unit, “**Unit 0 - Introduction to AP Biology - Core Skills +Big Ideas Used Throughout Year**” will be on experimental design and graphing skills that we will apply all year, and on the basics of **Big Idea 1: Evolution** and **Big Idea 4: Interactions**, to be able to apply these concepts within College Board units 1-8 throughout the year.

The details of this summer assignment **are described on the next page** and are **posted as assignments in Google Classroom**. The **Google Classroom join code is** dxpj6ueb . You can additionally *choose* to complete other work from unit 0 before school starts if you wish; These are also in Google Classroom for you to find.

I hope that through the summer assignment, you become familiar with some of the biology terms, concepts, unit structure, and learning tools we will use throughout the year. I am delighted to see many familiar names on the class list and look forward to meeting the rest of you soon!

Sincerely,

Ms. Jennifer Benson

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1. **Join the AP Bio Google Classroom:** please join our Google Classroom for all details of the summer assignment, unit 0 assignments, announcements in the stream, etc. class code: dxpj6ueb
2. **Read our Unit 0 unit overview guide** - unit calendar, vocab, main learning objectives.
3. **Complete the 4 summer assignments described on the next page.** Each one is posted in google classroom along with many links to resources to help you. If there is vocabulary or concepts used that you don't know, be sure to use the posted pdfs, videos etc posted in Google Classroom to help you! Pro tip: most students in past years reflect that they wished they had **started the assignments about two weeks before the first day of school** (earlier and they forget the material; later and they are rushing to complete it all around other obligations).

AP Biology Four Summer Assignments Overview

Assignment 1: Biogeochemical Cycles Scavenger Hunt This assignment is designed to have you learn the four biogeochemical cycles (Water, Carbon, Nitrogen, and Phosphorus) by getting outside, taking photographs, and creating a presentation of your scavenger hunt finds! Use the rubric and use the Google Slides template posted in Google Classroom. **25pt lab grade.**

Assignment 2: Background Statistics and Graphing Assignment It is recommended you print out this assignment so you can make your four graphs on the graph paper and answer the box and whisker plot questions. This assignment is designed to have you feel confident about when to make a line, bar, scatter plot or pie chart (there are rules, you can't just make any kind of graph you want) and also review box and whisker plots. Use the videos and other resources posted in Google Classroom in this assignment post to help you with the assignment. **10pt lab grade.**

Assignment 3: Review of Experimental Design, and apply to real AP Bio FRQ It is recommended you print this out to more easily answer the questions. This assignment starts off with Honors Bio level experimental design review (independent variable, dependent variable, etc) and then has you apply these skills to some real AP Bio FRQ ("Free Response Questions"). **You are NOT suddenly expected to know the biology info in these questions;** the point is to show you that you can still pick out independent and dependent variables, control groups, etc without knowing the topics described. **10pts**

Assignment 4 - choose option A or B or C: (10pts)

Option A: Ethogram Animal Behavior weekly study - at least 15 minutes each time, at least 3 weeks in a row of an animal near you or from provided list of zoo webcams. Fill in a printout of the animal behavior chart posted in Google Classroom for assignment 4. and write a one paragraph summary of the behaviors observed over time.

Option B: Listen to one of the episodes of "ologies" by Allie Ward listed in GC + write reflection
<https://www.alieward.com/ologies> and write "Ologies" is regularly ranked by many lists as one of the top science podcasts out there, and Allie Ward is extremely engaging and funny! You will have to skip over a chunk of ads in the middle, right before she takes listener questions) But it's worth it. DO NOT listen to Ologies around young children or anyone who would get upset by casual use of swear words. Find the list of episodes for this assignment posted in google classroom and choose one!

Option C: Create and use a plant press! Follow the instructions in Google Classroom to create a plant press using cardboard, paper, and paper towels. Be sure to write the common and scientific name next to each pressed plant, and bring your plant press to the first day of class, filled with at least 10 different plants!

OPTIONAL Enrichment ideas for 3pts on Unit 0 TEST: Listen to 3 more episodes of your choice (not just from my list in Assignment 4 Option B) of "ologies", or read the entirety of [*Braiding Sweetgrass*](#), or read "[*I Contain Multitudes*](#)" or "[*An Immense World*](#)" by [*Ed Yong*](#).