



2018-2019 AP Biology Summer Work



Please Read This Paragraph First:

What are you signing up for? This year-long study of biology is an introductory biology course taken usually taken by biology majors during their first year of college. The course is structured around the enduring understandings within four big ideas in biology, and will provide a basis for students to develop a deep conceptual understanding as well as opportunities to integrate biological knowledge and science practices through inquiry-based activities and laboratory investigations.

The Big Ideas:

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

AP Biology is historically a challenging and difficult class, but with effort and dedication, many students do well. There are many resources available to help you, and students using them often succeed. I am committed to helping you be as successful as you choose to be, so please do not hesitate to contact me for any questions, concerns or assistance. I will check my email often during the summer.

Biodynamically yours,

Mr. Fuchs

fuchsj@needvilleisd.com

Summer Work:

Join the google classroom website. All summer work will be posted on google classroom and this is how I will share important documents and information. I will expect you to submit certain assignments to me through this website.

Join the Google Classroom website:	
Go to https://classroom.google.com and log in to your account using your school NISD email.	Add this class using the code igzzxg

The summer work required for this course will consist of two parts. **All summer work is due by August 1st, 2018.** If possible please submit all work through google classroom or by email. All assignments are in a PDF form that will allow you to type your answer directly into the document.

Part 1:

- This covers the Ecology unit. Ecology is the easiest unit for students in AP Biology few concepts are beyond the 9th grade biology level. By completing this unit essentially on your own, you will be allowing us to spend more time on more difficult concepts in AP Biology during the school year.
- You will read the following chapters from the book that are on google classroom in a PDF file. Answer the questions in the packet that correspond with the appropriate chapter.
 - **Ch. 53 Population Ecology**
 - **Population growth problems**
 - **Ch. 54 Community Ecology**
 - **Summary of the main ideas (concepts) in the chapter and how ecologist can apply this information.**
 - **Ch. 55 Ecosystem and Restoration Ecology**
 - **Summary of the main ideas (concepts) in the chapter and how ecologist can apply this information.**

Part 2:

- Biology case study – Case studies are not only used to teach scientific concepts and content, but also process skill and critical thinking. Since many of the best cases are based on contemporary, and often contentious, science problems that students encounter in the news, the use of case studies in the classroom make science relevant.
 - You will read the case study **“The Effects of Coyote Removal in Texas: A Case Study in Conservation Biology”** and answer the questions in the reading.

Grading:

- Part 1 will count as one daily grade.
- Part 2 will count as one daily grade.
- There will be a test (major grade) over Ch. 53-55 during the first week of school.

Classroom Supplies

- CliffsNotes AP Biology 5th edition ISBN-13: 978-0544784680 (if you cannot get this edition and have to get an older edition that is fine)
- 1 spiral notebook (100 pages or more)
- 1 ½" binder or folder (your choice)
- Notebook paper
- Pencils
- Pens (blue or black)