INTRODUCTION & RATIONALE

The revised AP® Biology course is equivalent to a two-semester college introductory biology course (lecture and lab) but administered in the high school setting. This summer assignment is designed to get a jump-start to our learning and skill practice so we can hit the ground running on the first several days of school. We will begin the year with a discussion of evolution and natural selection followed with a detailed investigation of the cell and cellular processes. We will also be working on practicing the quantitative skills biologists use to ask questions, conduct experiments, and make conclusions about the living world around us.

ASSIGNMENTS

The assignments described below are designed to be done in the last one or two weeks of summer before school starts. They represent the volume and time you will most likely need to spend preparing for successful completion of the class.

1. Join our Google Classroom here. You will need to use your @fcpschools.net Google account to join and the code is: 6pwc92d. If you are having difficulty or need paper copies of anything below, please contact Mr. Switzer at jrswitzer@fcps.edu.

2. POGILs. Print off the two POGIL exercises and complete them directly on the sheets. Paper copies are available in the Main Office at LBSS. Completing these paper worksheets will give you a refresher on evolution and natural selection mechanisms you learned about in your freshman year biology course. Print the PDFs and work to complete the exercises and bring them to class with you on the first day. Below are links to online resources which may help you review the details of evolution and natural selection and are intended to supplement your work on the POGILs:

   c. VIDEO HHMI The Making of the Theory https://www.youtube.com/watch?v=XMpJiZ3ycZwU

3. BOOK EXCERPTS: The Beak of the Finch. You will need to read three chapters from Jonathan Weiner’s (1995) book The Beak of the Finch: A Story of Evolution in Our Time. Chapters 4, 5, 6 are the chapters we will focus on. The chapters are PDFs in our Google Classroom (see above) Paper copies of the excerpts are available in the Main Office at LBSS. The book is available on amazon.com for under $15; it is also available as an audio book. You can also find limited copies of the book in the Fairfax County Public Library. Annotate your reading. Again, we will be focusing on only the chapters listed above.

4. DATA SETS FOR ANALYSIS: HHMI BioInteractive Data Sets. There are two PDFs posted on the LBSS website and in the Google Drive/Docs folder shared with you. Finches_Graphing_Student and Finches_Statistics_Student. Print the PDFs and work to complete the exercises and bring them to class with you on the first day. Paper copies are available in the Main Office at LBSS.

We are your teachers and want to help you, so don’t be afraid to reach out and introduce yourself and/or ask for help or to clarify an assignment if you need it. Please feel free to email Mr. Switzer (jrswitzer@fcps.edu) and/or Mrs. Farouq (ffarouq@fcps.edu) with any questions, concerns, or clarifications. ☺