

AP Biology Summer Assignment

Since Biology is the study of life and evolution explains the unity and diversity of life we see on Earth you will focus on evolution for your summer assignment. Your summer assignment is in two parts. Your assignment is due on the first day of class for part I. Part II needs to be placed in the dropbox on Friday, September 10th.

Part I: you will be refreshing your memory on some evolutionary topics by reading the evolution chapters in your textbook (9th grade textbook is fine OR the online textbook Unit 4 <https://openstax.org/details/books/biology-2e> then answer the following questions.

1. **Describe** (in two to three sentences for each individual) the philosophies and theories related to evolution of the following: Aristotle, Hutton, Cuvier, Lyell, Malthus, Lamarck, Wallace and Linnaeus. **Discuss** how these ideas influenced Charles Darwin.
2. **Describe** the observations and the inferences Darwin made that led him to propose natural selection as a mechanism for evolutionary change.
3. **Explain** how the following types of evidence support Darwin's theory of evolution: homology, biogeography and the fossil record.
4. **Describe** the conditions on the early Earth that made the origin of life possible.

Part II: Read *The Serengeti Rules* by Sean B. Carroll and write a book review.

A book review consists of a summary of the book and your impression of the book. In your review, relate your book to evolution and another major topic in biology. We will be discussing the book in class at several different points in the fall.

Here is an example of a book review for this book

The Serengeti Rules by Sean B. Carroll

Book Review: <https://www.theguardian.com/books/2016/mar/23/the-serengeti-rules-sean-b-carroll-review>