**Welcome to AP Biology 2018-2019!**

Hello! Are you ready for that awesome summer vacation? I sure am! But before we head off, I just want to say a quick “HOLA” to my future students! AP Biology is a rigorous, challenging college-level course that will require a lot of your time, focus, and perseverance. But, it will be fun getting to know each other as we discover the depths of biological concepts and conquer new academic heights. Most importantly, we will set our sails to overcome the challenge of the AP Biology test in May 2019. It’s gonna’ be tough…but nothing ever worth fighting for or keeping ever came easy, folks. I’m so thrilled about this next year. It looks as though we’ll have two large classes and I bet you are all an incredible group of students. So, do this small AP Biology summer assignment, ENJOY your summer, and I’ll see y’all on the first day of school! ☺

Sincerely,

Miss Butler

ASSIGNMENT #1: LETTER OF INTRODUCTION (Due Tues, Aug 7th!)

Send an email to jennifer.butler@myoneclay.net. Your email must adhere to the following guidelines:

1. Use clear, full sentences with correct punctuation.

2. Use a formal style of communication like you would use when writing to your college professor.

3. Make the subject heading: Your name (first and last) AP BIO Letter of Introduction

4. Begin the letter with a formal salutation, like “Miss Butler” or “Dear Miss Butler.”

5. Now introduce yourself and tell me a bit about you (Hello, my name is \_\_\_\_\_)

a. What you like to do (hobbies, sports, music, interests)

b. Tell me a little about your family (Mom, Dad, Guardian, Siblings, Pets, how long you’ve lived in the area)

c. What was the most exciting thing that you did (or are doing) this summer?

d. What do you like most about Biology?

e. Why are you taking this class and what do you hope to learn about?

f. What are you most anxious about in AP BIO?

g. The prerequisites for this class are as follows. Do you meet these requirements?! Why/why not?!

* Successfully completed Biology (minimum “A” yr avg) or Honors Biology (“B” yr avg)
* Successfully completed Chemistry OR will be taking Chemistry concurrently.

h. Anything else you think I should know or anything you would just like to share??? ☺

Assignment #2: Get to know “The Big Ideas” as you read Survival of the Sickest!

**A.P. Biology** is an in depth inquiry-based study of four 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

Within each Big Idea are several Enduring Understandings which are delineated further into numerous Essential Knowledge concepts. The new organization of the curriculum provides students explicit benchmarks in the understanding of biology as a systematic science. This wonderful book addresses the 4 Big Ideas in a personal and intriguing nonfiction platform.

1. Get the book “Survival of the Sickest” by Dr. Sharon Moalem. (Amazon.com has some for cheap! I also have just a few I can lend out to students! ☺)

2. Choose passages from the book that demonstrate TWO (2) different Enduring Understandings per Big Idea. Since there are 4 Big Ideas, you must choose 8 different passages (2/Big Idea) for 8 different Enduring Understandings. Please see the attached charts for an explanation of the 4 Big Ideas, 17 Enduring Understandings, and 55 Essential Knowledges.

3. Explain how each passage relates to the Enduring Understandings and the Big Ideas. (Feel free to use notebook paper or make more copies of the attachments below if you need more space for the assignment. Just keep all work very neat and legible, thank you!)

4. **Upon return to school you will complete an in-class, on-demand essay using your book and the work completed in this packet. Pages 3-6 will also be collected for a grade.**

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

Passage 1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Enduring Understanding (Number and Letter): \_\_\_\_\_\_

Explanation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Passage 2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Enduring Understanding (Number and Letter): \_\_\_\_\_\_

Explanation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

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Enduring Understanding (Number and Letter): \_\_\_\_\_\_

Explanation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Enduring Understanding (Number and Letter): \_\_\_\_\_\_

Explanation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

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Enduring Understanding (Number and Letter): \_\_\_\_\_\_

Explanation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Passage 2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Enduring Understanding (Number and Letter): \_\_\_\_\_\_

Explanation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

Passage 1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Enduring Understanding (Number and Letter): \_\_\_\_\_\_

Explanation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Passage 2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Enduring Understanding (Number and Letter): \_\_\_\_\_\_

Explanation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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