



Course: Biology

We hope that you, your families and loved ones are well! During the COVID-19 pandemic school closure, we will be doing our best to provide you engaging activities that will enrich your understanding of Biology. During term 4, you will be exploring topics in Genetics and Evolution.

Goal for this week

Learning Objectives:

Students will be able to ...

1. understand populations, not individuals, evolve.
2. describe the lines of evidence supporting evolutionary theory.
3. explain how mutations lead to genetic variation and allow for natural selection.

(2016 MA STE Standard: HS-LS4-4)

Literacy Objectives:

1. Reading: to understand a concept and construct meaning
2. Writing: to take notes
3. Writing: to generate a response to what one has read, viewed, or heard
4. Reasoning: to identify a pattern, explain a pattern, and/or make a prediction based on a pattern

(<https://www.bpsma.org/schools/brockton-high-school/about-us/mission-literacy-charts>)

Lesson:

Biology Buffet: Evolution Week 1

- See the page(s) below for a complete description of what to do and the resources you will need.
- ***Your science teacher will be in contact to clarify expectations (like when and how to submit your work for credit) for your class.***

WHY THIS MATTERS

In 1973, the evolutionary biologist Theodosius Dobzhansky penned the essay "[Nothing in Biology Makes Sense Except in the Light of Evolution](#)". Indeed, this idea helps create a central organizing theme to every concept you have learned throughout this course. Evolution is a thing. We can [see it happening before our eyes](#) with the formation of antibiotic resistant bacteria. Read more about how this is leading to an 'antibiotic crisis'. Learn more about [what you can do](#) to prevent it!

Additional Support

Email:

- Please reach out to your science teacher with specific questions about the lesson.

Office Hours:

- Here is a list of the [science teachers' office hours](#). Please email your teacher to set up meeting times.

Other questions:

- Science Department Head
Dr. David Mangus
davidmangus@bpsma.org



Biology Buffet

Topic: Evolution

Assignments to do:

Click on the link to view the resource ...

1. Complete [Biology Corner Evolution Quiz](#) to see what you already know.
2. CK 12 Readings and Videos on the [Theory of Evolution](#) and [Natural Selection](#) and answer the "Start Practice" questions (green button, bottom right of the page).
3. Review and take notes on the [Evolution Overview](#) PowerPoint.
4. [Myths and Misconceptions About Evolution](#) video and answer the "Think" questions.
5. **Choose 3 assignments from the buffet below to complete:**
You should select 1 appetizer, 1 main course, and 1 dessert

Appetizer
Watch Stated Clearly What is Evolution video and read your genome article .
Read " What is evolution and how we know it's happening " and complete Nova Labs Introduction to Evolution video/questions.
Complete the Concord.org simulation " Adaption is for Populations ".

Main Course
Watch Stated Clearly What is the Evidence for Evolution video and answer Khan Academy " Evidence for Evolution " questions.
Watch Bozeman Biology Evidence for Evolution video and answer Khan Academy " Evidence for Evolution " questions.
Complete UC Berkeley " Evidence for Evolution " webquest.

Dessert
Watch Kurzgesagt How Evolution Works video and answer MCAS question
Watch PBS Eons How Evolution Works (And How We Figured it out) video and answer MCAS question
Complete the Natural Selection Simulation (requires Adobe Flash Player)

Extensions:

[The mysterious origins of life on Earth](#) - Luka Seamus Wright

Kurzgesagt Video - What Happened Before History? [Human Origins](#)

Recommended Pacing

Monday: Begin pre-work assignments, **Tuesday:** Finish pre-work assignments, **Wednesday:** Complete an appetizer, **Thursday:** Complete a main course, **Friday:** Complete a dessert