

WEEKLY REMOTE LESSONS

June 15-19, 2020

BROCKTON HIGH SCHOOL
SCIENCE DEPARTMENT



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 2

- 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 Week 2

Assignments to do:

Click on the link to view the resource ...

Complete both meals this week ...

Meal 1
Appetizer: Watch the HHMI video " The Origin of Species: Lizards in an Evolutionary Tree " and complete the handout .
Main Course: Complete the HHMI " Lizard Evolution Virtual Lab " (click blue/green "Launch Interactive" button) and handout .
Dessert: Complete an MCAS practice question .

And

Meal 2
Appetizer: Watch the HHMI video " The Making of the Fittest: Evolving Switches, Evolving Bodies " and complete the handout .
Main Course: Complete the HHMI " Stickleback Evolution Virtual Lab " (click blue/green "Launch Interactive" button) and complete the handout .
Dessert: Complete an MCAS practice question .

Extensions:

[The Biology of Skin Color](#)

Lactose Tolerance: [The Making of the Fittest: Got Lactase? The Co-evolution of Genes and Culture](#)

Sickle Cell Trait: [The Making of the Fittest: Natural Selection in Humans](#)

Rock Pocket Mouse: [The Making of the Fittest: Natural Selection and Adaptation](#)

What human hands, vision, and brains reveal about our evolution: [Your Inner Monkey](#)

Genetic and anatomical legacy of a fish can be seen today in the human body: [Your Inner Fish](#)

Recommended Pacing

Monday: Begin Meal 1, **Tuesday:** Complete Meal 1, **Wednesday:** Begin Meal 2, **Thursday:** Complete Meal 2, **Friday:** Complete any work not finished and submit to your teacher.