



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 alleles are versions of the same gene.
2. predict the genotypic and phenotypic outcomes from mono and dihybrid crosses.

(2016 MA STE Standard: HS-LS3-3)

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: Genetics

- 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

Have you ever wondered why you look like you mom and dad? Of course, it's because you get roughly half of your genes from each parent. Punnett squares allow you to predict the likelihood an offspring will have particular traits. Learn more about how [genetic counselors](#) help people understand risks and types of genetic disease. Maybe it's the career for you!

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: Genetics

Assignments to do:

Click on the link to view the resource ...

1. [Pre-work questions](#).
2. CK 12 Readings [Mendelian Inheritance](#) and [Punnett Squares](#) with [worksheet](#)
3. Genetics Overview [PowerPoint](#) and [Worksheet](#)
4. **Choose 3 assignments from the buffet below to complete:**
You should select 1 appetizer, 1 main course, and 1 dessert

Appetizer
Amoeba sisters Punnett square video with SpongeBob worksheet
Bozeman Biology guide to Punnett squares and monohybrid cross worksheet
Studying Heredity – active reading with questions

Main Course
Cartoon Genetics Lab
Amoeba Sisters Video , Dihybrid and two trait crosses video with Bunny dihybrid worksheet
Amoeba Sisters Video , Sex linked Traits recap worksheet

Dessert
MCAS Open Response Questions
Dihybrid practice with MCAS examples
Sex Linked Traits Worksheet

Extensions:

- Amoeba Sisters Blood type [practice](#)
- Skin Color [video and reading](#)
- Sickle Cell [videos and Punnett squares](#)
- Quick Lab [pedigree](#)

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