

General Biology Lab Assignments

SEA-PHAGES Week 1

Instructions: Fully answer the following questions using full sentences and proper grammar. The answers should reflect your own work. For some of the questions, you may need to research the answers in your textbook or the web. Any information taken from other sources should be cited using APA format.

1. What does the acronym SEA-PHAGES mean?

SEA-PHAGES is an acronym for Science Education Alliance-Phage Hunters Advancing Genomics and Evolutionary Science.

2. What are the main objectives of the SEA-PHAGES program?

The main objective of the program is an undergraduate program that focuses on increasing your interest to discover things through biological sciences such as digging into different dirt/soil to find different kinds of viruses.

3. Why is a program so important?

This program is important because students begin learning at early stages in their careers learning about STEM which means science, technology, engineering, and mathematics. disciplines and promote continued interests in these areas. This specific program mainly focuses on the broader impact with a larger number of students .

4. What are phages? How many have been found by Nyack College students?

PHAGES is only one year (stead two, comparing that to SEA-PHAGES) is a project designed to offer courses to students with little or no research experience in their past. 313 Nyack College students were a part of phages.

5. How many genes are in the phage Journey13?

Journey13 has 18 genes.

6. Provide the names of TWO of the genes and state their function.

One of the genes located can be identified as the Journey13_15 gene and it is head-to-tail accessory and another gene is Journey13_17 and it is a head-to-tail connector protein.

7. What is the difference between COVID-19 and coronavirus?

The difference between those (COVID-19 & Coronavirus) is just the simple fact that it is a specific strain of all of the “coronaviruses” that there are. They mean the same thing but the only difference is the fact that it’s the acronym for Coronavirus.

8. What is the specific name of the coronavirus and where did it originate?

9. The specific name of coronavirus is SARS-CoV-2. It originated from Wuhan City, China.

10. How many genes are in the coronavirus?

There are 15 genes in COVID-19.

11. For TWO of the genes, provide the names and state their function.

One of the genes can be identified as the bovine coronavirus-ENT strain and the other one can be identified as the murine hepatitis virus-A59 strain.

12. Are there any similarities between Nyack Warrior and the coronavirus in looking at the genes present in each virus?

The similarities between Nyack warrior and the coronavirus is that they can spread the same way, which is through droplets when those who are infected touch surfaces or release the droplets into the air.

13. How does the coronavirus spread?

It spreads from person to person through droplets of people touching things and talking which is why most states are required to wear masks.

14. Explain how you can minimize your risk of exposure and getting sick.

You can minimize getting sick by washing your hands and wearing your mask.

15. Which individuals have the highest risk of getting sick from the virus?

People over the age of 60 are at high risk of getting the virus.

16. What did you learn from the video which you did not know previously?

I didn't know that droplets can actually be transferred through touching surfaces that someone who is infected has touched. I thought you can only spread droplets from your mouth which is where the use of masks comes in.