

Part 3:

On a separate page, answer the following questions in complete sentences, and with details/evidence you found from class data.

1. How many brown mice were produced in the first generation? How many white mice?
2. Using the bar graph and manipulating the "analysis type", which color mouse (in which environment) was most successful?
3. How many of these (from answer to #2) survived after the last generation? (Hint: change the "group selection")
4. Using the pie chart graph, order from most to least successful (population size) mouse population that survived. Compare these numbers to the original mouse population (in generation 1). Is there a correlation between these two amounts? If so, explain why you think this is true.

Using the scatterplot (and group by mouse environment), change the x and y axes to create graphs that will help you analyze the data and answer the following: (Hint: Use the "saved visualization" if you need help.)

5. Which mouse color in which environment had the most difficulty surviving? How do you know?
6. What trend did you see in the mouse color populations over all generations?
7. Which allele, W or w , was removed from the gene pool by predation? (Hint: Which color mouse was eventually removed from the population?)
8. How did the results in Part 2 differ from the results in Part 1?
9. If the main predator of mice in this white sand desert were an animal that hunted by smell rather than sight, would you expect the same results as this model produced? Explain your reasoning.
10. *Challenge:* In this experimental model, the total number of mice decreases each generation. Do you think this represents what would occur in a real situation? Explain, using evidence gained using this model. Can you propose a way that you could change the model to make it more realistic?