Name: _____

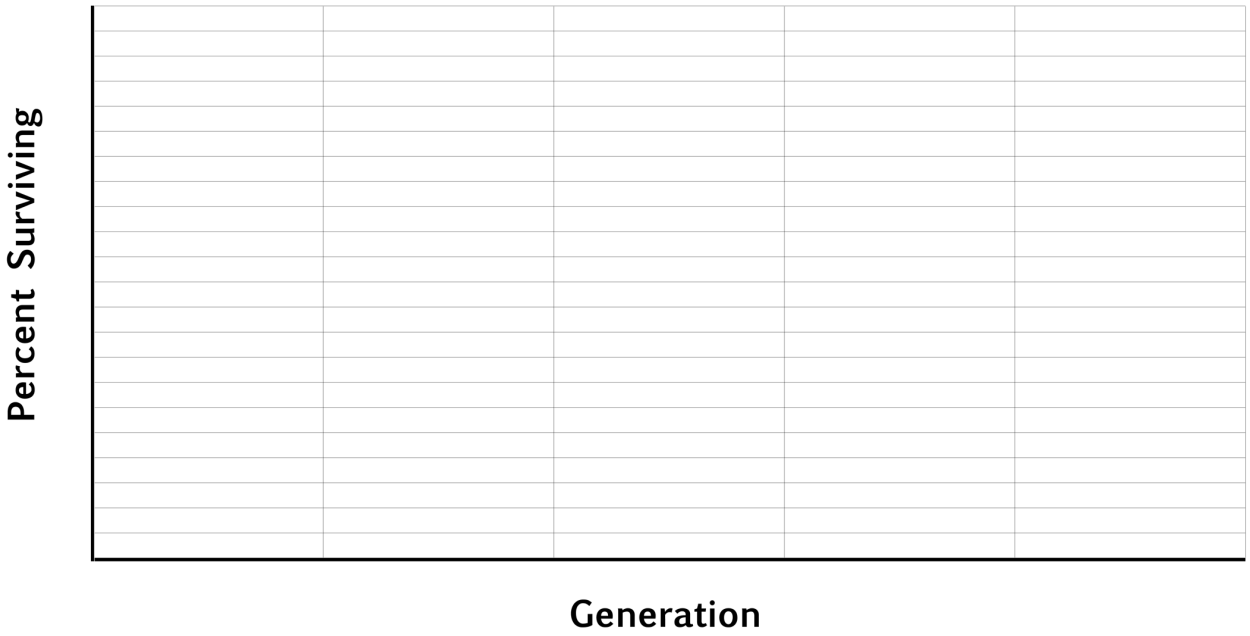
Lab 2: Natural Selection Worksheet

Due in class at the start of next lab

1. Fill in the following table with the results from your Natural Selection simulation, indicating the number of each color that survived and reproduced.

	Survivors									
	0 (start)		1st generation		2nd generation		3rd generation		4th generation	
Prey color	No.	%	No.	%	No.	%	No.	%	No.	%
	25									
	25									
	25									
	25									

2. Graph the results of the selection experiment below, using line graphs. Use colored pencils to represent each of the prey colors and draw one line for each color prey. Include the starting generation. Don't forget to add the appropriate numbers to the axes.



3. Which color prey had the highest survival in the first environment (generations 1-3)?

4. What were the most common or dominant colors in your original background?

5. Does the color that had the best survival match or contrast with the dominant background color? Is this what you expected based on your knowledge of natural selection?

6. Were any prey colors lost from your population? If none were lost, which color would expect to be lost first based on the trends in the first three generations?

7. What were the dominant colors in the new environment (background cloth) that you used for the fourth generation? Did these differ from your original background?

8. After the environment changed prior to the 4th generation, did the direction of evolution change? Why or why not do you think this is the case?

9. Based on your results, do you think the diversity in coloration of your prey species is likely to increase, decrease, or remain the same over time?

10. What are **two** ways in which a color variant that was lost due to natural selection could return to your population?

11. Imagine a new mutation that produced an albino individual that was pure white. Do you think this trait would spread successfully in your population? Explain why or why not?