

Name: _____
Section: _____

STATION 1 – Natural Selection Simulation (Rabbits vs Wolves)

Introduction

- Start the game settings by adding a “friend” to the lone rabbit on the screen.
- Choose the “equator” environment
- Wait until the population reaches at least 10 rabbits and then add the mutation “brown fur” to the scenario
- Wait until the population reaches at least 50 and then choose the selection factor “wolves”

Questions

- 1) What color were the rabbits at the start of the game?

- 2) Did the white rabbits ever fully disappear from the scenario? How?

- 3) Did white rabbits ever reappear after being eaten by wolves? How did that happen?

- 4) Play the game one more time. Include the variables in the table below and summarize what happened as a result.

Mutation Added	Selection Factor	Environment

Summary of results:

STATION 2 – Natural Selection Simulation (Peppered Moths vs Birds)

Open the simulation and choose “Birds Eye View.” Play the game in both the dark and the light forest. Try to behave as a bird would behave, choosing the moths that are the most obvious. At the end of each simulation, record the percent of moths captured in the table below.

	Dark Forest	Light Forest
Percent White Moths		
Percent Dark Moths		

Final Analysis

- 1) Explain how the color of the moths increases or decreases the moths’ chances of survival. Use data to support your thinking.

- 2) Explain the concept of "natural selection" using your moths as an example.

- 3) What would happen if there were no predators in the forest? Would the colors of the moths change over time? Defend your answer?