Name _____
Date _____
Period ___

Lab Activity Report
Modeling Natural Selection

Background: Natural Selection is

Purpose: In this activity, students will create a simple model of natural selection. Then, they will have a better understanding of how natural selection changes a population.

Hypothesis: At the beginning of this simulation, there are an equal number of students to organisms. How many? _____ How many organisms do you think will be alive at the end of the simulation?

_____
_____

Materials:
Pre-cut Cards (1 each of live, die, reproduce, mutate)
Clock

Procedure:
1. You will be using the data table provided to record your data.

Student Name	Trial 1	Trial 2	Trial 3

2. Get the 4 cards from the teacher. Fold each card in half, so that you cannot see the words.

3. Shuffle the cards.
4. Without looking, exchange 2 of your cards with those from 1 other classmate.
5. Shuffle your cards. Make as many other additional exchanges as you would like for 30 seconds.
6. Stop. Look at your pieces of paper. If you have 2 cards that say "die" or "mutate", sit down. Record your results in the data table. (Trial 1)
7. If you do not have 2 cards that say "die" or "mutate", then you are a survivor. Record the words that you are holding in the data table.
8. Then refold the pieces of paper and exchange your cards again. (2 more times – Trial 2 and Trial 3).

Conclusions

1. What is natural selection?

   _____
   _____

2. What is an adaptation?

   _____
   _____

3. What do the 4 words on the paper represent?
   Live: _____
   Die: _____
   Reproduce: _____
   Mutate: _____

4. What happens to most mutations in the model?

   _____
   _____

5. What factor(s) determined who survived? **Explain.**

   _____
   _____

6. What mistakes are there with this model of natural selection?

   _____
   _____