

NAME _____

Period _____

PRETEND ANIMAL EVOLUTION

WE HAVE TRAVELED TO THE "LAND OF PRETEND ANIMALS!" AND SOME OF YOU WILL BE TURNED INTO PRETEND ANIMALS. THE REST OF US ARE GOING TO WATCH AS THE ANIMALS FEED, LIVE, DIE AND GO THROUGH THE PROCESS OF NATURAL SELECTION.

Animals: We will need 16 students, four for each species, to play the parts of the animals. Each species has a special adaptation used to collect food, which will be beans thrown on grass. (YUM! YUM!)

Counters: We will also need 8 students to record the counting of the beans collected by each species of animal.

TABLE I: VOLUNTEER TABLE

Name of Animal Species	Object used to collect food	Names of Student Volunteers					
		1 st Volunteer	2 nd Volunteer	3 rd Volunteer	4 th Volunteer	Counter #1	Counter #2
<i>Tubies</i>	Test Tube Holders						
<i>Spooners</i>	Spoons						
<i>Forcepies</i>	Forceps						
<i>Choppers</i>	Chopsticks						

RULES FOR COLLECTING FOOD AND ROLES FOR STUDENTS:

1) Animals must only use their "SPECIAL ADAPTATION" to pick up beans and place them in their "STOMACH CUPS." **Use the adaptation only as designed, do not flip the beans in the cup.**

Pick them up one at a time. Hold cups upright at all times. NO SCOOPING OF BEANS!

2) Animals will not steal beans from others, or knock over the cups of others. Animals will not throw beans. The purpose of the lab is to study the effects of food collecting adaptations on the process of natural selection. **Please do nothing to mess up the results!**

3) Natural Selection: Animals will **collect beans for 30 seconds**, at which time they will stop and count their beans. Report the total number of beans to the counter who will record the data in TABLE II.

The species with the fewest beans will lose one member due to starvation. This species becomes an endangered species. The dead member now becomes a member of the species who collected the most beans. THIS REPRESENTS SURVIVAL OF THE FITTEST, OR NATURAL SELECTION.

4) The Angels of Death: The Angels of Death are the students who will help watch for cheaters. **Cheaters will be removed from the experiment immediately due to sudden death!**

5) Mother Nature: The teacher acts as Mother Nature, of course, and will supervise the activity.

Analysis of Data: After all data is collected the class will return to the room. The data will be put on the board to generate a graph of the results. The graph will illustrate how natural selection allowed the best adapted species to increase in population, while the least adapted species become extinct.

TABLE II: TABULATED RESULTS

Species		GENERATION NUMBER					
		1 st Generation	2 nd Generation	3 rd Generation	4 th Generation	5 th Generation	6 th Generation
<i>Tubies</i>	# of Animals Feeding						
	Total # of Beans Eaten						
<i>Spooners</i>	# of Animals Feeding						
	Total # of Beans Eaten						
<i>Forcepies</i>	# of Animals Feeding						
	Total # of Beans Eaten						
<i>Choppers</i>	# of Animals Feeding						
	Total # of Beans Eaten						

GRAPH: Use a separate piece of graph paper.

Prepare a Graph as Instructed Below:

- 1) **TITLE:** The title must reflect what is being illustrated.
- 2) **Y AXIS:** "Number of Animals Alive Each Generation." Remember to use proper increments to spread the data out.
- 3) **X AXIS:** "Generation Number." Remember to use proper increments to spread the data out.
- 4) **PLOTTING YOUR DATA:** The graph will have four separate lines with four different colors.
 - A. "**Tubies:**" Place a dot for each number of animals above each generation.
 - B. "**Spooners:**" Use a different color to plot the points as you did above.
 - C. "**Forcepies:**" Use a different color to plot these points.
 - D. "**Choppers:**" Use a different color to plot these points.
- 5) **KEY:** Make a key for your lines.

6) CONCLUSION: (WRITE A THREE-PART CONCLUSION In Complete Sentences)

Part A: Name the pretend animal that was the best adapted to the environment (most fit) in this experiment and why you decided that it was. Name the animal that was the least fit and why you decided that it was.

Part B: Explain why you think this was a good experiment to illustrate how Natural Selection may work in nature. If you think it wasn't a good experiment, explain why.

Part C: What or who decides which species will survive or become extinct in nature? Explain.