OH, DEER

Name_____

Introduction: All living things have certain needs for survival. Food, water and shelter are minimum needs for every organism. In this activity you will model how these needs are met, what happens when they are not, and see how populations fluctuate based on their availability.

Materials: colored paper pieces, 4 trays, clipboard, whistle

Procedure:
1. A student needs to volunteer to record data.
2. 1/4 of class needs "food" markers, 1/4 needs "shelter" markers, 1/4 needs "water" markers and 1/4 will start as deer.
3. Go outdoors or to a large indoor area and line up with deer on one side and survival needs on another.
4. "Deer" students turn their backs to survival needs and get a marker from their trays.
5. When the whistle sounds, deer turn around and run to the survival needs and stand in front of someone with the same color marker as they do.
6. The pair walks back to the "deer" side of the field and turn with their backs to the "needs" side. They can exchange colors from the trays if they want.
7. If a deer does not find a "need" to match theirs, they die and join the need line.
8. The game is repeated 9 more times or as time allows.
9. Back in the classroom the data recorder will read off the number of deer that survived each round.
10. Make a graph of the data on the back of this page.

Prediction: Will the number of deer stay the same or vary?

Data: (you will write this down from the numbers provided by the data recorder)

	Years	Number of Deer
	0	
	1	
	2	
	3	
	4	
	5	
	6	
	7	
	8	
	9	
	10	

25										
24											
23											
22											
21											
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12											
11											
10											
9											
8											
7											
6											
5											
4											
3											
2											
1											
	0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

D E E R (vertical axis label)

YEARS

Analysis:

1. What pattern did you see in the deer population from year to year?

2. Why do you think the pattern formed?

3. Carrying capacity refers to the ability of an environment to support living things. How is carrying capacity related to deer population size?

4. Mountain lions hunt deer and rely on them for a food source. If mountain lion populations had been modeled in this activity, what would you expect to see happen?