Natural Selection with Teddy Grahams

Purpose: The concept of Natural Selection will be demonstrated.

Materials:
   Bears: Happy and Sad
   Graph Paper

Procedure:

1) Read the story and follow directions.

2) Obtain a population of bears, and record in table 1 the number of each: The Total Population, the Happy Bears, and the Sad Bears.

3) Eat three Happy Bears. If you don't have three Happy Bears, then eat what you have in Happy Bears.

4) Get a new generation from the teacher. Repeat steps one and two.

5) Repeat for two more generations (total of four).

6) Determine the percentage of sad and happy bears for each generation, record the percentages in table 2, and graph the population results.

Story:

You are a bear-eating monster. There are two kinds of bears: Happy Bears and Sad Bears. You can tell the difference between them by the way they hold their hands. Happy Bears hold their hands high in the air, and Sad Bears hold their hands down low. Happy Bears taste sweet and are easy to catch. Sad Bears taste bitter, are sneaky, and hard to catch. Because of this, <u>you eat only Happy Bears</u>. New bears are born every 'year' (during hibernation) and the birth rate is one new bear for every old bear left from the last year.

Hypothesis: What do you expect to happen to the number of Happy and Sad Bears over time?

_____

_____

_____

Results:

Number of bears at the start? _____. This is generation one.

Table 1: The number of bears for each generation

Generation	Number of Happy Bears	Number of Sad Bears	Total Bears
1			
2			
3			
4			

Table 2: The percentage of bears for each generation

Generation	Percentage of Happy Bears	Percentage of Sad Bears
1		
2		
3		
4		

Graph the data from table 2.
1) Graph what happens to the bear population over time.

Key:
Graph Percent of Happy Bears as: _____
Graph Percent of Sad Bears as: ....

Conclusion:
1) How many new bears did you get for each generation?

Generation 2 _____, Generation 3 _____, Generation 4 _____

2) What happened to the percentage of each type of bear over time?

a) Happy?

b) Sad?

3) How does this compare with your hypothesis?