Bird and Beak Lab

Background:
Imagine... you are a bird on Darwinia, a tropical island in the South Pacific. You share your home with only three other species of birds. One hundred mile/hr winds from Hurricane Harry have nearly wiped out the food supply on Darwinia. Your survival is at stake!

Purpose:
Your goal in this simulation is to eat as much food as possible in the time allowed. Recognize how differences in structures relate to differences in survival rates.

Materials:

Beak Types	Stomach	Foods
Spoon	Cup	Macaroni
Clothes Pin		Popcorn
Scissors		Rice
Forceps		Rubber bands
		Toothpicks

Procedure

1. Have each group member select one beak to eat with, and take a cup to serve as your stomach.
2. Carefully, one person will spread out the food, at random on top of your table.
3. Remain silent so the instructor can signal to commence feeding.
4. At the command "**GO**", use only your beak to pick up the pieces of food. Remain stationary during feeding.
5. Place each piece of food into your stomach (cup).
   DO NOT PUSH FOOD TO THE EDGE OF THE TABLE
   DO NOT USE THE OTHER HAND
6. Stop feeding when time is called by your instructor.
7. Count the number of each type of food in your stomach and record the numbers of each type in a data table.
8. Record the data from your other group members in the data table.
9. Return all food and materials. **PLEASE CLEAN UP**
10. Prepare a bar graph to display all of your groups data. Use a different color bar to represent each food type.
11. Be sure to title and label your graph. (Hint: Beak Type with Food is the independent variable and number of Food items is the dependent variable)
12. Answer the conclusion questions.

Data:

Beak Types	# Macaroni	# Popcorn	# Rice	# Rubber Bands	# Toothpicks
Spoon					
Clothes pin					
Scissors					
Forceps					

Conclusions:

1. Which food was the easiest to collect for each beak?

2. Why was it easier to collect some food that others?

3. Why do birds have different types of beaks?

4. How have birds adapted to their environment?

5. What would happen to a bird population if their favored food source was eliminated?

6. What would happen if macaroni had a high nutritional value and popcorn had no nutritional value?