**Adaptation in Beaks**

Differences in tools can affect the feeding efficiency, and therefore the survival, of a species. Similarly, beak variations in birds can influence their survival.

**Materials:** aluminum pie plate, petri dishes, sunflower seeds, forceps, clothespins, tongs, chopsticks, stopwatch

**Problem:** How do adaptations affect natural selection?

**Procedure:**

1. Gather a pan of seeds, four petri dishes, and four different tools, or “beaks.”
2. Choose one member of the group to be the recorder and timer. The other members will be the “birds.”
3. Create a data table with space to record three trials of each tool and an average of all of the trials.
4. Run three timed trials of 30 seconds each for each tool. Pick up as many seeds as you can during the 30 seconds and place them in a petri dish. At the end of each trial, count the number of seeds “eaten.”
5. After the third trial, calculate the average for the “beak,” and record the average in your data table.

**Analyze and Conclude:**

1. Overall, which “beak” or “beaks” were most successful?
2. Describe the beak of a bird that could have evolved to successfully eat these seeds. Which beak would not be suited to these particular seeds? Draw a rough sketch of each beak type.
3. Use the terms *beak, seeds, natural selection, adaptation*, and *success* to describe what happened in the lab.