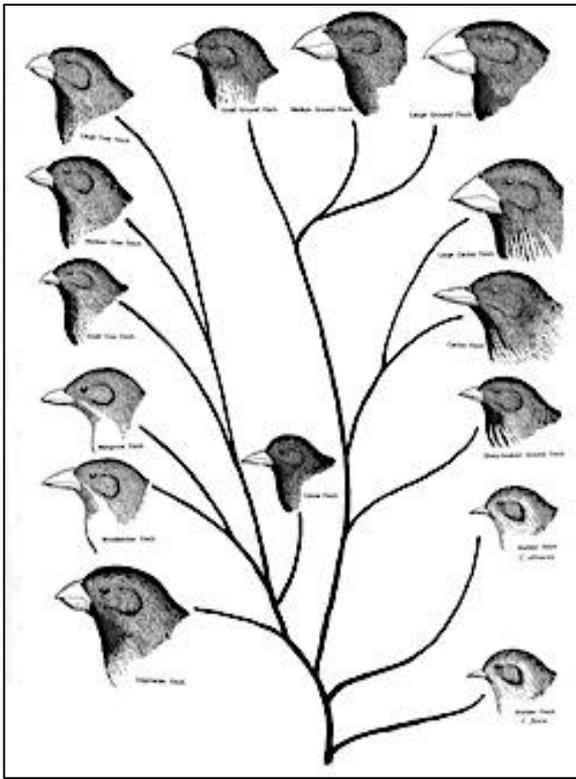


**Unit F: Evolution**

Name: \_\_\_\_\_

**Activity 96 – Battling Beaks**

Period: \_\_\_\_\_



**PURPOSE:**

I can *give* examples of plant and animal **adaptations** that increase the success of an organism during an **environmental** change.

**BACKGROUND:**

During the history of Earth, species have both evolved and become extinct. So the scientists try to answer is: “Why do some species survive to reproduce while others do not?”

- In this activity, you will follow a single species called ‘Forkbirds’ through 10 generations. Each Forkbird’s goal is to gather enough food to survive and reproduce. Thus, the successful trait passes on to the next generation.
- Sometimes, a forkbird offspring will have a genetic mutation that makes it different from its parent. Forkbird offspring can mutate to have 1-, 2-, or 4-tined beaks. These trials will determine which mutation will increase the Forkbird’s chances of surviving and reproducing again!

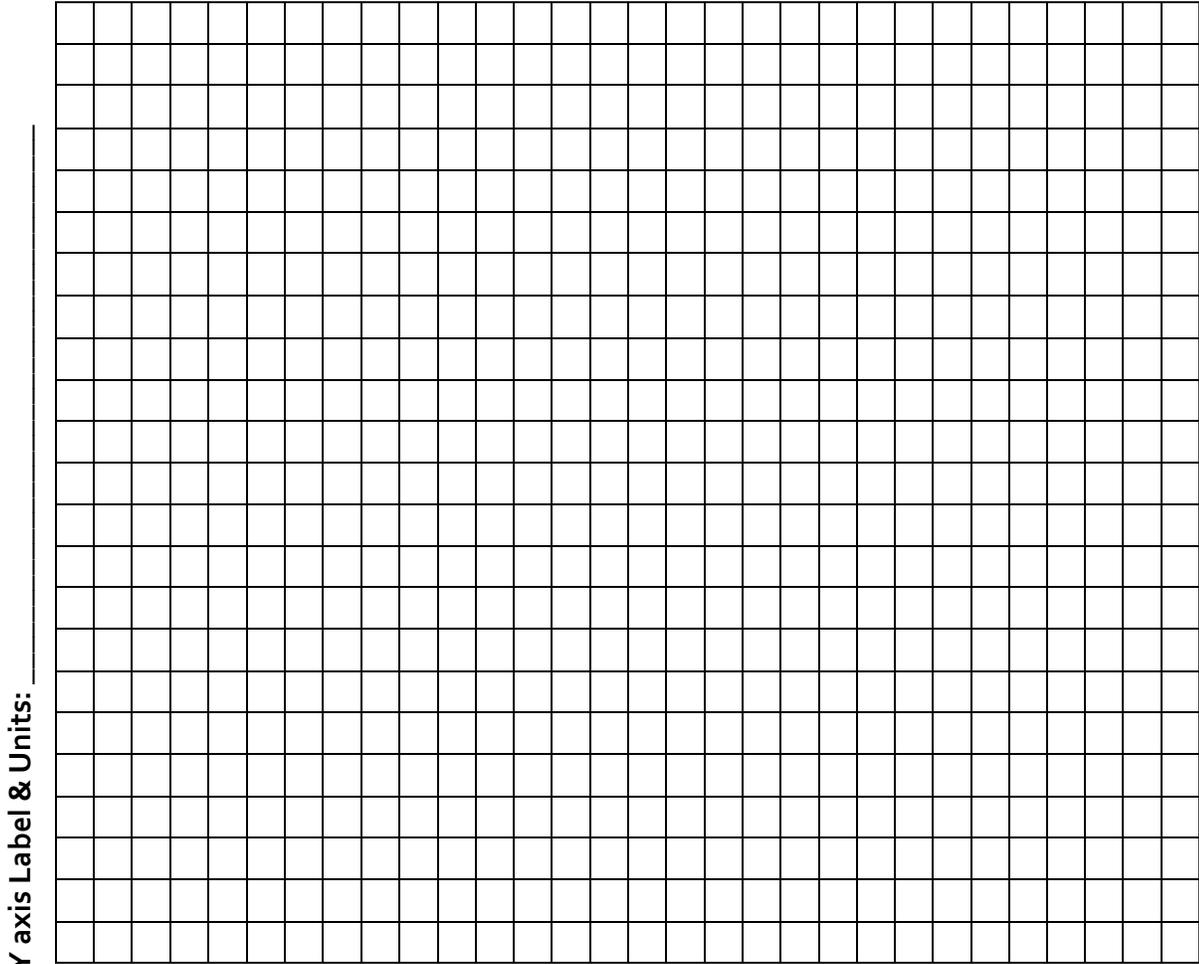
**PROCEDURE:**

1. As a group, follow the procedure on pages F-34 – F-35.
2. Record your data in Data Table 1 below.
3. Create a graph of your data in the space provided below.
4. Answer all analysis questions at the end of this worksheet.

<b>Data Table 1 – Forkbird Evolution over 10 Generations</b>			
<b>Generation</b>	<b>1-Tined Forkbirds</b>	<b>2-Tined Forkbirds</b>	<b>4-Tined Forkbirds</b>
<b>Initial</b>	-----		-----
<b>1</b>			
<b>2</b>			
<b>3</b>			
<b>4</b>			
<b>5</b>			
<b>6</b>			
<b>7</b>			
<b>8</b>			
<b>9</b>			
<b>10</b>			
<b>Class Total</b>			

**DATA ANALYSIS:**

Title: \_\_\_\_\_



**KEY**

X axis Label & Units: \_\_\_\_\_

**ANALYSIS QUESTIONS:**

1. Explain which forkbird was the most successful? Use experimental data in your explanation.

Empty box for writing the answer to the analysis question.

2. (a) What adaptation did the most successful forkbird have **AND (b)** tell how this adaptation (from #1 above) enabled these forkbirds be more successful.

a.

b.

3. Using data from the graph, *describe* how the number of each type of forkbird changed over time.

**1-Tined Forkbirds:**

**2-Tined Forkbirds:**

**4-Tined Forkbirds:**

4. *Explain* how this forkbird activity simulated the process of **natural selection**. **Refer to the class definition as you answer this question.**