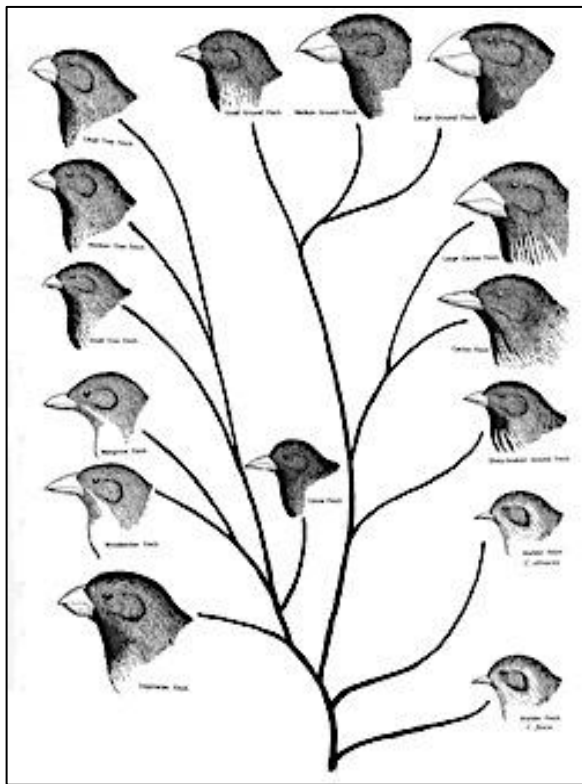


Unit F: Evolution

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!

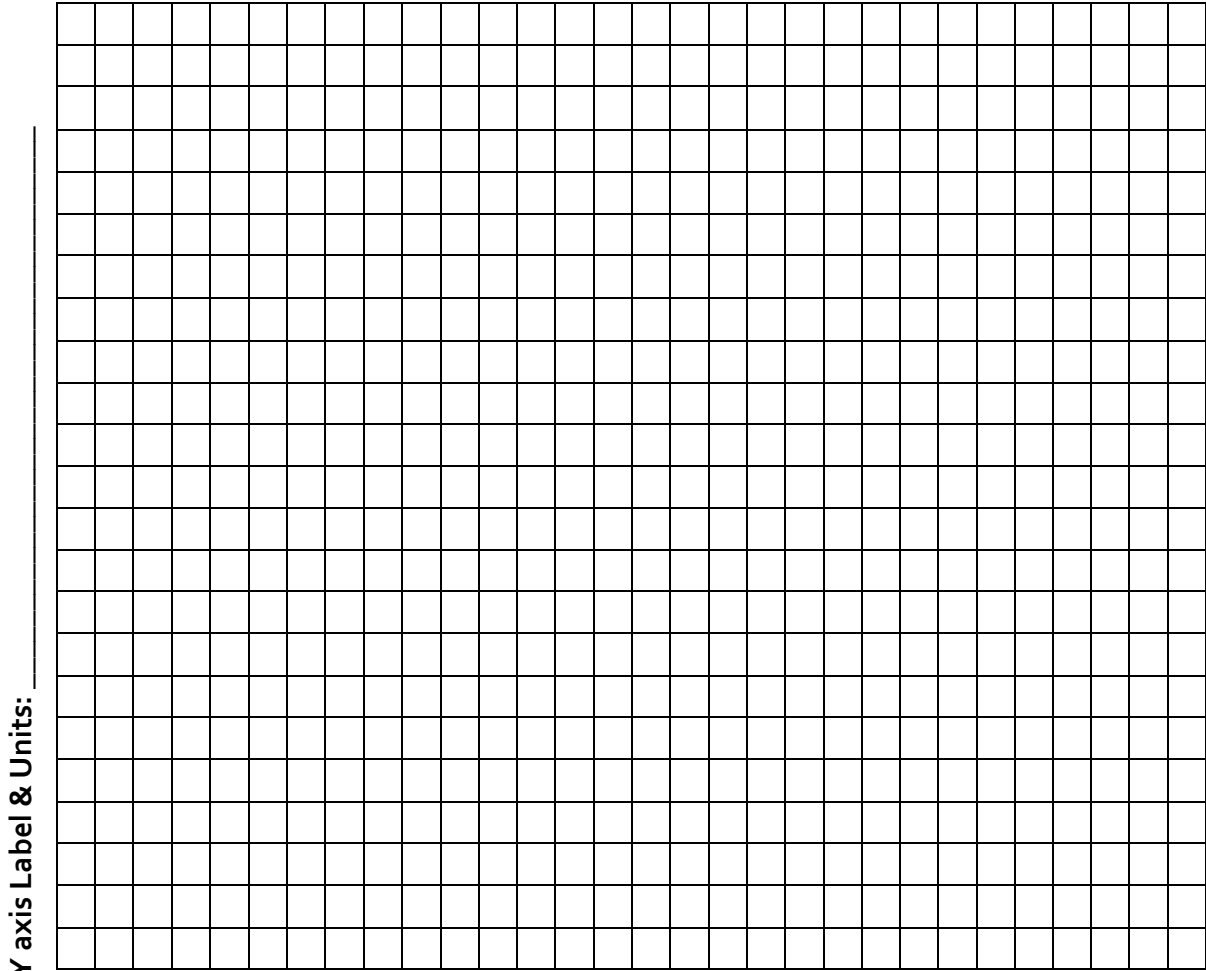
PROCEDURE:

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.

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

DATA ANALYSIS:

Title: _____



KEY

X axis Label & Units: _____

ANALYSIS QUESTIONS:

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

A large empty rectangular box provided for the student to write their explanation.

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.**