**Evolution and Natural Selection**

**Nature Summer Camp 2017**

Project description:

Students will learn about the diverse effects of natural selection.

Standards Addressed:

1.) LS4.B Natural Selection

"Natural selection occurs only if there is both (1) variation in the genetic information between organisms in the population and (2) variation in the expression of that genetic information that is, trait variation that leads to differences in performance among individuals. The traits that positively affect survival are more likely to be reproduced, and thus are more common in the population."

2.)LS4.C Adaptation. "Natural selection leads to adaptation, that is, to a population dominated by organisms that are anatomically, behaviorally, and physiologically well suited to survive and reproduce in a specific environment. That is, the differential survival and reproduction of organisms in a population that have an advantageous heritable trait leads to an increase in the proportion of individuals in future generations that have the trait and to a decrease in the proportion of individuals that do not. Adaptation also means that the distribution of traits in a population can change when conditions change."

Project Objectives:

1. Students will learn how to interpret and analyze data.
2. Students will learn to create and use models.
3. Students will learn how to construct explanations while arguing from evidence.

Timeline

9:00-9:30 Cultural Connection

9:30-10:00 Power Point

10:00-11:00 Activity 1 Terms

11:00-11:15 Break

11:15-12:00 Activity 2 Natural Selection/Evolution I/II

12:00-1:00 Lunch

1:00-1:45 Activity 3 III

1:45 -2:30 Activity 4 Fittest Organism-Habitat Changing

2:30-3:00 Wrap Up/Discussion Groups

Extra Activity: If time allows-“The Making of a Theory: Darwin, Wallace and Natural Selection” w/ activity work

**Material List:**

Spoons

Forks

Tweezers\*if have available

Chopsticks\*if have available

Plastic Cups

Graph Paper

Pens, Pencils, Colored Pencils/Markers

Pom Poms (Red/ Black) \*about 80 of each color

Felt (Red/ Black) 1 piece of 4’by 4’ of each color\*or cray paper-doesn’t need to be felt

Large Poster boards (4-one per group)