

Name \_\_\_\_\_ Date \_\_\_\_\_ PD \_\_\_\_\_

S-8-3-1 Natural Selection Lab Activity

**SAS website**

<http://www.pdesas.org/module/content/resources/16280/view.ashx>

**S-8-3-1**

# Natural Selection Lab Activity

**S-8-3-1 Natural Selection Lab Activity****Introduction**

In this lab activity, you will use white and colored paper circles to represent two kinds of prey. You will act as the predator, with forceps to “catch” the prey. First, you will try to catch the prey on a white background, and then you will try to catch the prey on a newspaper background.

**Natural Selection Notes****Vocabulary**

- **Competition:** Living things striving in each species compete for food, living space, mates, and other resources.
- **Adaptation**—A change in an organism over time that helps it to survive in its environment.
- **Structural**—body structure (e.g., a porcupine’s quills).
- **Functional**—the way body functions are carried out (e.g., how we use our lungs to breathe).
- **Behavioral**—how living things react to the environment (e.g., how wolves hunt in packs).
- **Natural selection:** Living things that are best suited to their environment are most likely to survive and reproduce. They pass their traits to their offspring. This causes species to change over time.  
Species that are alive today descended, with changes in their traits, from species that lived in the past.

**Basic Concepts of Natural Selection**

- Individual living things are different from each other. This is called *variation*.
- Variation is important because without it, populations cannot evolve over time.
- Living things produce more offspring than can survive, and many that survive do not reproduce.
- Living things compete for limited resources, such as food and shelter.



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#### Analysis

- a) **TOTALS: total each row (going across) per paper by adding up the number of "bugs" you collected. Then record your answer in the space provided**
- b) **TOTALS: total each column per paper color by adding up the number of "bugs" you collected. Then record your answer in the space provided**
- c) **Calculate the average of each column in your data table by taking your answer from the previous problem and then dividing by 3. Record your answer in the space provided.**
- d) **Calculate the Percent that Died by taking your answer from the previous problem and dividing by 100. Record your answer in the space provided.**
- e) **Calculate the Percent that Survived by subtracting the percent died from 100. Record your answer in the space provided.**

#### Conclusion:

1. Describe how did the color of the prey affect their survival?

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2. Explain how is this activity an example of natural selection?

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3. Based on your results, what conclusion are you able to make?