

## Nature at Work

**Objectives:** Students will understand how and why organisms change over time. Natural selection can lead to changes in a species' trait over time due to changes in an organism's environment. The student should be able to predict how changes can and will affect the process of natural selection.

**Materials:** Colored dots, colored paper, tweezers, stop watch, cup

Hypothesis: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### Procedures:

1. Students will take their cup of colored dots and spread dots on their paper.
2. Using tweezers collect dots one at a time and place them back in your cup. Collect dots for one minute. Count the dots and record data in the data chart.
3. Repeat step 2 three times.
4. Move to another background environment to ascertain whether the environment will change your outcomes. Repeat steps 1 through 3 again. Record data in data table.
5. Move to a 3rd background environment. Repeat steps 1 through 3. Record data in data table.

**Data Table**

Trials	Color	Count for Each Color	Percent of total
1			
2			
3			

Color of Background

What color was your background? How did this affect the organisms ability to survive? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Bar Graphing**

Numbers of Dots



Color of Dots

**Data Table**

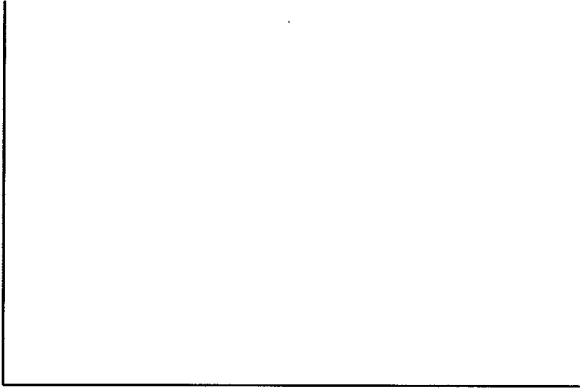
Trials	Color	Count for Each Color	Percent of total
1			
2			
3			

Color of Background

What color was your background? How did this affect the organisms ability to survive? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Bar Graphing**

Numbers of Dots



Color of Dots

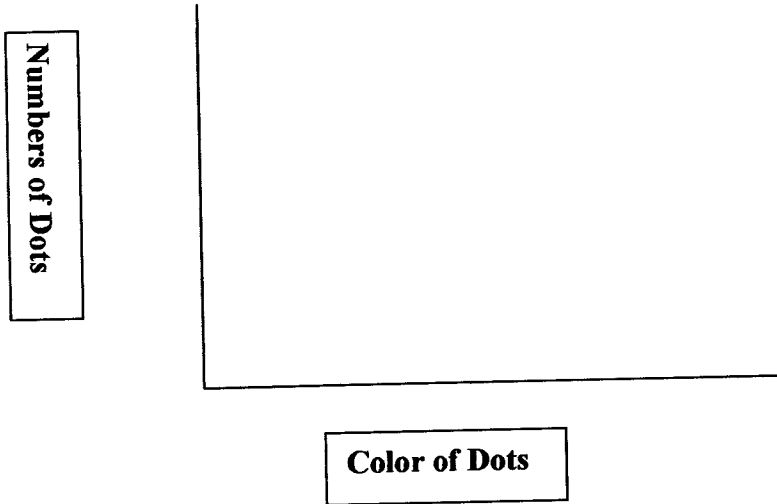
**Data Table**

Trials	Color	Count for Each Color	Percent of total
1			
2			
3			

Color of Background

What color was your background? How did this affect the organisms ability to survive? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

## Bar Graphing



6. Using what you have learned about how the variations in an organism appearance can assist them in survival, describe another characteristic that may change over time. Be specific and give detailed information about your organism's trait that has changed.

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