## Natural Selection Activity

| Beans | \# of black/ <br> brown beans <br> remaining | \# of white <br> beans <br> remaining | \# of black/ <br> brown beans <br> picked | \# of white <br> beans picked | \% of black <br> beans picked | \% of white <br> beans picked |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Black/Brown <br> environment |  |  |  |  |  |  |
| White <br> environment |  |  |  |  |  |  |

## Natural Selection Activity

Work with a partner, but perform your own tests.
Have your partner time for you while you perform your test, then switch. You should each have your own data.

- Spread out all of the beans on the light colored paper
- Have your partner set a timer for 30 seconds, and close your eyes until it rings
- Open your eyes and immediately grab the FIRST bean you see, place it in a pile to the side
- Immediately close your eyes and have your partner count to 10
- Open your eyes again, grab the FIRST bean you see, place it in your pile
- Repeat this cycle 10 times
- Count the beans remaining on the paper, \& the beans in your pile. Record on your data chart
- Determine the percent of each color beans you picked, record on your data chart.
- Repeat this entire experiment on the other colored paper.


## Natural Selection Activity

## Analysis \& Conclusions:

1. Graph your surviving percentages in each environment. You should have two bar graphs with 2 bars or 1 bar graph with 4 bars.
2. Why did different beans survive better in different environments?
3. What do you think would happen to the bean population with the worst survival rates if you continued the activity?
4. Analyze how your model demonstrated that natural selection produced a change in population, not the individual.
5. How does this simulate the process of natural selection?
6. What type of natural selection would you say was taking place? (Directional Selection, Disruptive Selection, or Stabilizing Selection)
